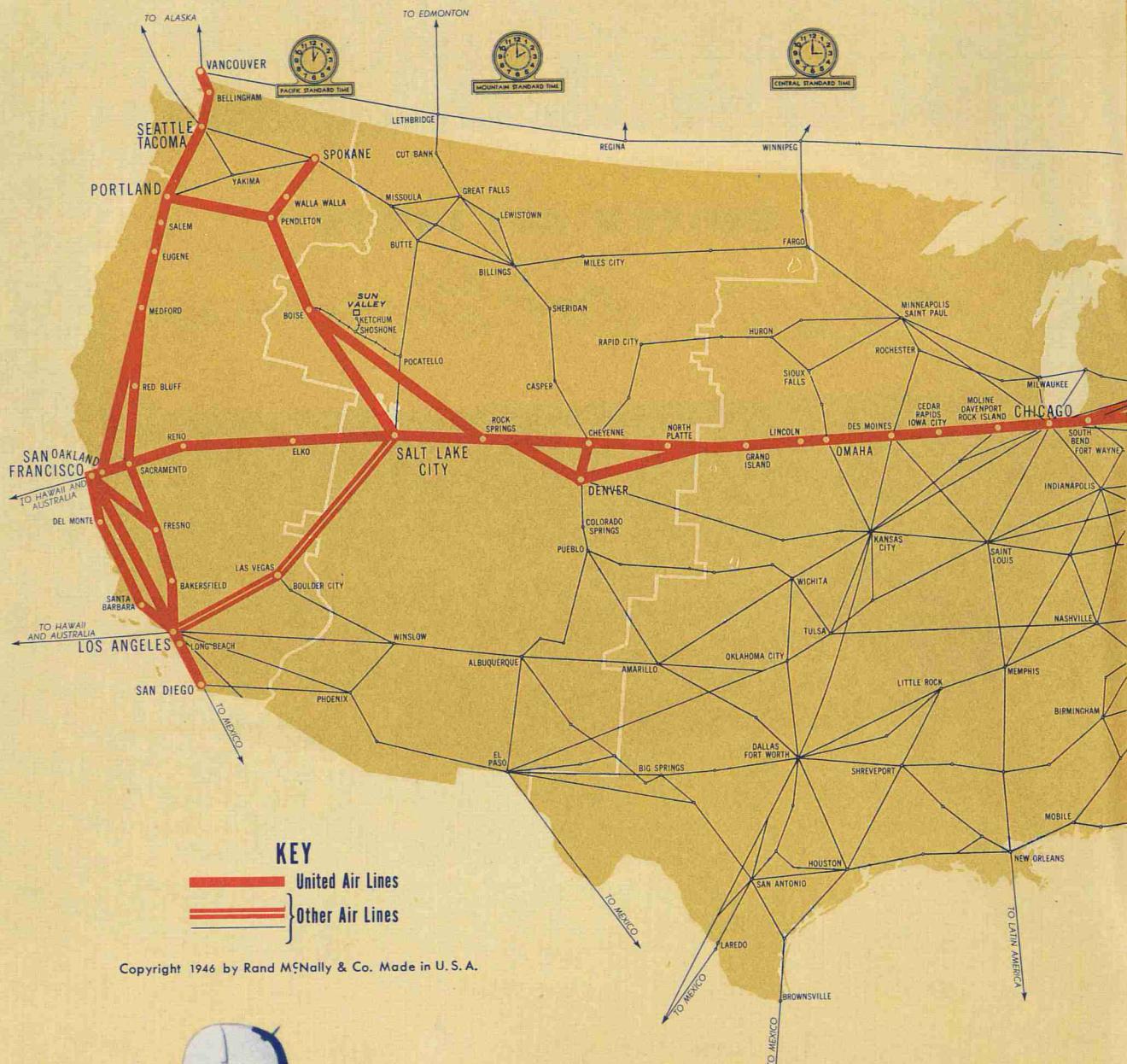


UNITED AIR LINES

*Maps of the Main Line Airway*



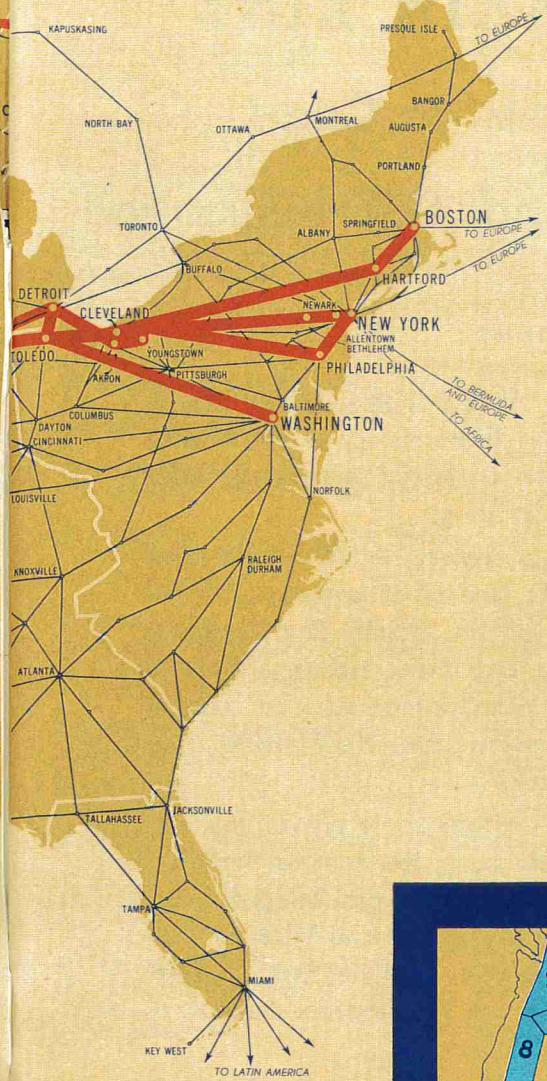


### United Air Lines' Mainliner 230





EASTERN STANDARD TIME

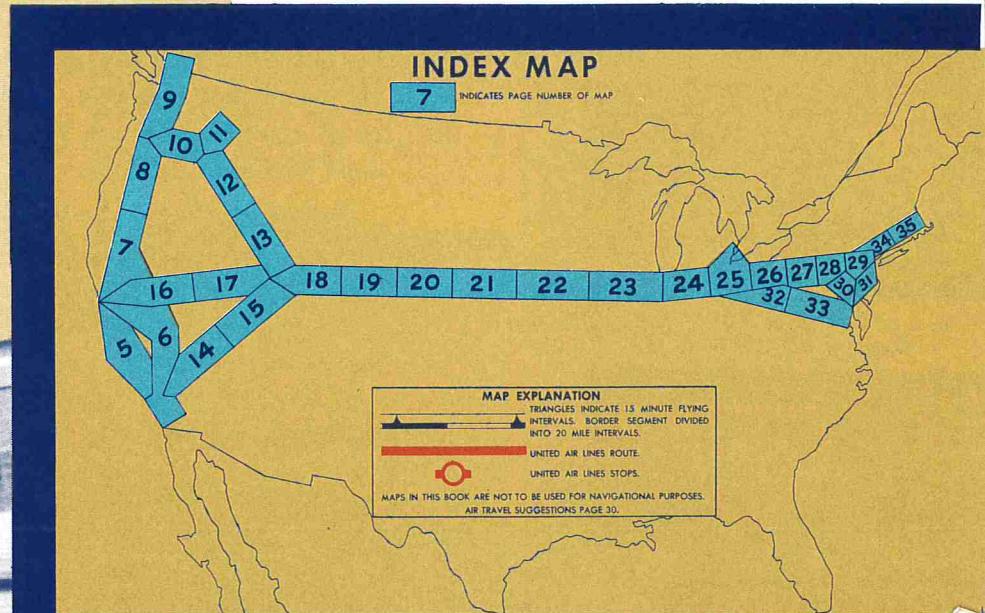


**UNITED AIR LINES'** Main Line and Pacific Coast Airways directly serve 54 cities in 17 states, the District of Columbia and one Canadian province; and offer connecting airline service to over 256 cities as well as air-rail connections to hundreds of others in the United States and Canada.

Whether you travel coast-to-coast, border-to-border or between intermediate cities, you will find that United Mainliners and connecting services save many hours and often-times days of valuable time.

Postwar, 4-engined Mainliners will carry up to 52 passengers and 5500 pounds of express, mail and cargo at speeds up to 5 miles a minute!

Population figures given in this book are from U. S. Census of 1940 or latest official estimates of 1943.





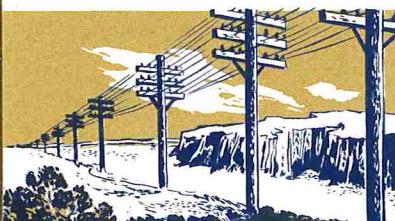
Pioneer Covered Wagons traveled over the Overland Trail in 1830.



Pony Express riders carried mail from Mid-West to California in 11 days.



The Iron Horse, first transcontinental railroad, followed the Overland Trail.



The first cross-continent telegraph line was established along the Trail.



First East-West highway was projected across the Old Overland Trail.



The nation's first coast-to-coast airway followed this central route of United.

# For a Century . . . THE MAIN LINE of Coast-to-Coast Transport and Communication

THE Overland Trail is a name written boldly across many pages in the history of our country . . . thrilling exploration, hardy pioneering, bitter conquest, empire building.

For more than a century, the Overland Trail has been the Main Line of coast-to-coast transport and communication. Indians and explorers charted its course and the creaking wheels of pioneer Covered Wagons marked it for what it was to be: the greatest "East-West" trade route in the United States.

Then this short, strategic route proved the best for the prairie schooners, the famous Pony Express . . . the first transcontinental telegraph . . . the first Iron Horse to link East and West . . . first cross-continent highway . . . the first coast-to-coast airway—shortest, fastest from the East to most Pacific Coast cities.

For twenty-five years this has been the Main Line of the nation's airways. Pioneered by the Post Office and developed by United Air Lines, today it is the central year round air route for the expedited transportation of passengers, mail and express from coast-to-coast and principal intermediate cities.

THE BUSINESS ROUTE OF THE NATION

# SAN FRANCISCO—LOS ANGELES

VIA

COASTAL ROUTE

• NON-STOP ROUTE

Southbound  
read down  
Miles from  
San Francisco

San Francisco-Los Angeles  
via Coastal Route.

Northbound  
read up  
Miles from  
Los Angeles

Direct  
mileage  
Southbound  
from  
San Francisco

San Francisco-Los Angeles  
via Non-Stop Route.

Direct  
mileage  
Northbound  
from  
Los Angeles

## 0 San Francisco, Calif. (Pop. 659,917) 371

San Francisco's famous Golden Gate and trans-Bay bridges and Treasure Island mark the site of 1939 Golden Gate International Exposition. San Francisco area is a spectacular sight from the air. Financial and shipping center of Pacific Coast and sea and air gateway to Orient, Hawaii and Australia.

19 Palo Alto. (Pop. 16,774). Home of 352 Stanford University.

## 24 Mountain View and Sunnyvale. 347

Ames Laboratory and U.S. Naval Air Station with huge docks for airships.

## 33 Santa Clara (Pop. 6,650), Famed 338

Lick Observatory on Mount Hamilton to east.

## San Jose (Pop. 85,000). Home of San Jose 338

State College and important fruit processing and canning center.

## 92 Monterey-Del Monte. The plane 279

makes regular landings at this famous resort playground. This stop also serves Salinas, noted produce center.

152 King City. The route follows the 219 central old Padre trail.

196 Paso Robles. 175

293 Santa Barbara. Beautiful beach 78 city where landing is made.

329 Santa Paula. To the north. Far below is the winding highway. 42

371 Lockheed Air Terminal, Burbank. 0 (Pop. 34,337). Where landing is made. 30 minutes to Los Angeles business district, 15 minutes to Hollywood.

Santa Barbara Beach Scene



Golfing at Del Monte



## 0 San Francisco Municipal Airport 327

111 Over Panoche Pass, historic lair of 216 California's once-famed bandit, Joaquin Murietta. Airway parallels the Diablo Range. Sierra Nevada Mountains are visible many miles to east across San Joaquin Valley.

151 Coalinga, Calif. Coalinga to east 176 of route. East Extension oil field with many large producers.

167 Avenal. (Pop. 4,500). Oil town in heart of fabulous Kettleman Hills oil field.

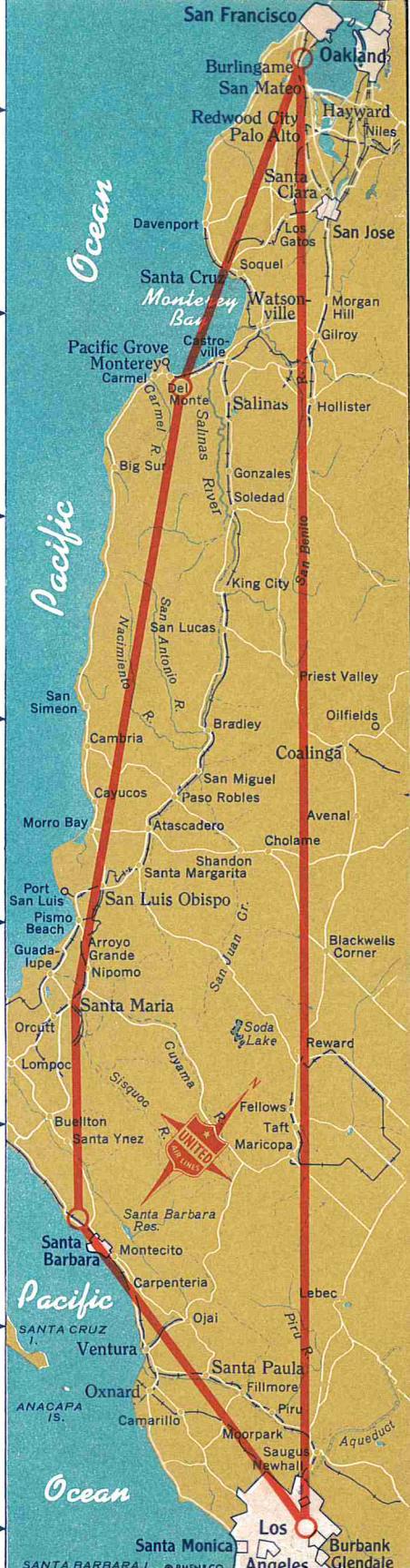
276 Lebec, Cal. Airway leads over 51 Tehachapis and the Grapevine Canyon which the Ridge Route highway follows. The airplane follows a bee line contrasted with winding surface routes. Comparative mileages, Seattle to San Diego: air, 1,224 miles; auto, 1,376 miles; rail, 1,550 miles.

327 Lockheed Air Terminal, Bur- 0 bank. (Pop. 34,337). Home of Lockheed and Vega Aircraft factories. 30 minutes to Los Angeles (Pop. 1,504,277). 15 minutes to Hollywood.

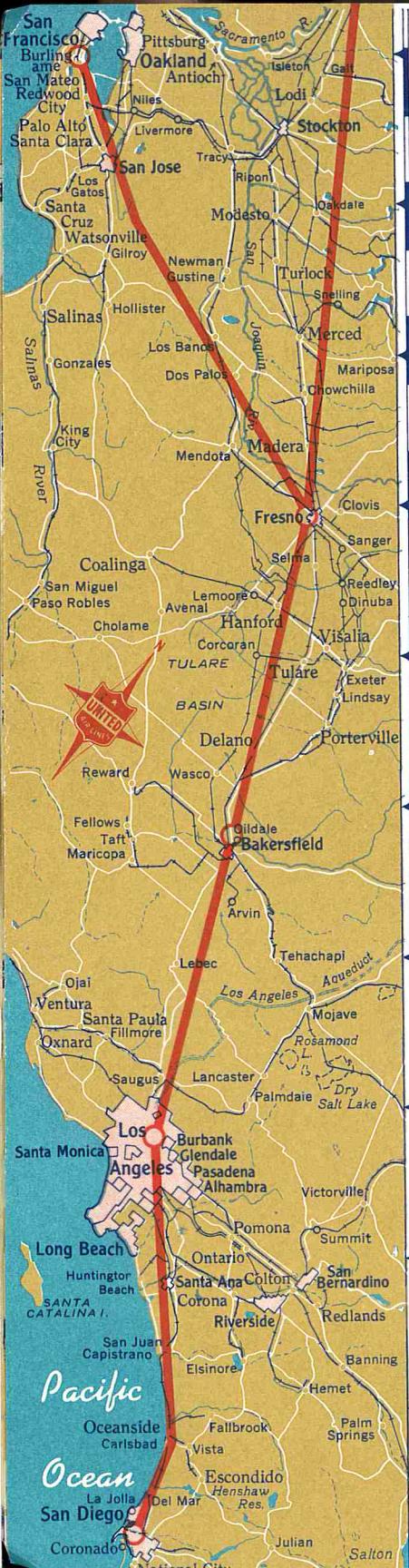
San Francisco and Los Angeles are only 2 hours apart by United Air Lines' non-stop Mainliners. Commuters may leave either city in the morning and be back home the same evening after a day in the other city.

United has three routes between San Francisco and Los Angeles. One is non-stop due north and south. Second is coastal route. See this map showing where airway turns west of Gilroy to serve Del Monte and Salinas and then flies south over the central old Padre trail to beautiful Santa Barbara and then in view of the Pacific to Los Angeles. The third route is the Valley Route via Fresno and Bakersfield shown on next page.

5



# SAN FRANCISCO—SAN DIEGO



Southbound  
read down  
Miles from  
San Francisco

San Francisco—San Diego

Northbound  
read up  
Miles from  
San Diego

Southbound  
read down  
Miles from  
San Francisco

San Francisco—San Diego

Northbound  
read up  
Miles from  
San Diego

## 0 San Francisco Municipal Airport 494

**Air Mileages:** Fresno, 169 mi. (1 hr.); Bakersfield, 269 mi. (1½ hrs.); Los Angeles, 330 mi. (2 hrs. non-stop); San Diego, 494 mi. (3¼ hrs.).

20 **Hayward.** (Pop. 6,736) Mt. Diablo to 474 northeast of route.

78 **Modesto.** (Pop. 16,379) To north of 416 plane. Airway leads over highly diversified irrigated farming area. Modesto interesting to air-minded as first U.S. city to provide for municipal airport (1909).

114 **Merced, California.** (Pop. 10,135). 380 important shipping point for northern portion of San Joaquin Valley.

169 **Fresno, California.** (Pop. 60,685). 325 In heart of San Joaquin Valley.

198 **Hanford, California.** (Pop. 8,234). 296 Large municipal airport; King's county seat.

202 **Tulare Lake Bed.** Bottom of a 292 prehistoric oil lake, to west of route.

269 **Bakersfield, Calif.** (Pop. 29,252). 225 In oil district in southern end of San Joaquin Valley. Here United planes land on certain schedules.

311 **Lebec, California** and Casatic 183 Lake. Beyond is Los Angeles Aqueduct and Antelope Valley leading to Mojave Desert.

363 **Los Angeles, Calif.** Famous 131 metropolitan center of Southern California. To the east are year-round resorts. Connections made here for airplane service to Mexico City, Central and South America.

383 Citrus development is easily recognized. To the east lie the Sierra Madre's, which separate the Los Angeles basin from the desert and make possible its world-famous climate.

6

California Orange Groves



Southbound  
read down  
Miles from  
San Francisco

San Francisco—San Diego

428 **Santa Ana, Calif.** (Pop. 31,921). 66 To the east are Santa Ana Mountains.

To the west lies San Pedro, the port of Los Angeles, an excellent man-made harbor, and Long Beach, largest of the beach cities. To the southwest is Santa Catalina Island.

## 439 **San Juan Capistrano, Calif.** 55

Where shore road connects with Old Spanish Trail. Famous old mission San Juan Capistrano is located here.

473 **Oceanside, California.** (Pop. 21 4,651). With long pier. Airway leads along bathing beach.

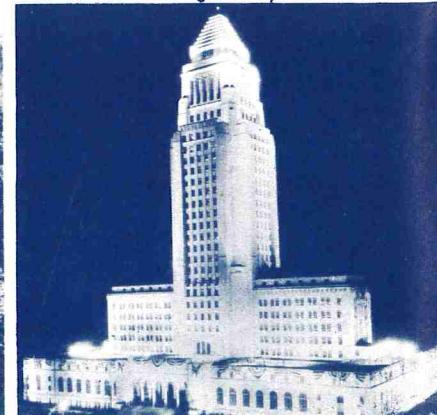
**Carlsbad, California.** Known for medicinal mineral waters.

483 **Del Mar, Calif.** Popular water- 11 ing place. LaJolla, to west of route, Point Loma to southwest with lighthouse. To south is North Island, Pacific coast home of the Navy branch of the air force.

## 494 **San Diego, Calif.** (Pop. 256,210). 0

Settled in 1769 by Junipero Serra. San Diego is a cradle of Californian civilization, shipping wholesale point, and tourist center. Just to the south is famed Coronado, a world-famous playground. Only 16 miles to Mexican border. Important naval and air base. North Island airport adjoining Lindbergh Field, which is only 5 minutes from business district. On United the trip from Vancouver, B. C., to Mexican border is 5 times as fast as surface transportation.

Los Angeles City Hall



# SAN FRANCISCO—MEDFORD

Northbound  
read down  
Miles from  
San Francisco

San Francisco—Medford

Southbound  
read up  
Miles from  
Medford

Northbound  
read down  
Miles from  
San Francisco

San Francisco—Medford

Southbound  
read up  
Miles from  
Medford

## 0 San Francisco Municipal Airport 362

**Air Mileages:** To Medford, 362 mi. (2½ hrs.); Portland, 584 mi. (4 hrs.); Seattle, 729 mi. (5½ hrs.); Vancouver, 859 mi. (7½ hrs.).

**12 Oakland, Calif.** (Pop. 302,163). **350**  
Municipal airport is location of United Air Lines' technical training center. Oakland is manufacturing, rail and shipping center. Adjacent are Berkeley, Alameda, Richmond and Vallejo, California.

**76 Sacramento, Calif.** (Pop. 105,958). **286**  
Capital of the state and an attractive city. Capitol building is prominent from the air. City is great shipping center for Sacramento Valley, and is on United Air Lines' mid-continent air route from California to New York via Chicago.

**95 Woodland.** To northeast is con- **267**  
junction of Feather River and Sacramento. Feather River attracts many sportsmen.

**130 Williams, California.** Radio **232**  
range.

**136 Marysville Buttes** to the east, only **226**  
prominent hills in long valley. Colusa, on railroad to west of Buttes.

**158 Willows, California** **204**

**173 Orland, California.** Floor of Sac- **189**  
ramento Valley is unusually flat. To east is largest individual lemon grove in world.

**187 Corning and Vina, Calif.** Large **175**  
acreage here planted in fruit and olives. Groundlines of peculiar pattern are dikes for irrigation. Airway leads over the Sacramento River for many miles. Highway is to west of line of flight.

**193 Tehama, Calif.** Railroad and high- **169**  
way junction point.

## 203 Red Bluff, Calif. (Pop. 3,824). **159**

Here is located one of the many excellent fields with latest type of radio installation established on United's coastwise airway.

## 232 Redding, Calif. (Pop. 8,109). **130**

Nearby is the world's largest dam, Shasta, impounding water for irrigation. The vast upper Sacramento Valley comprises 12,000,000 acres.

**268** Airway leads through Sacramento **94**  
River Canyon.

**285** West is Castle Crags, popular sum- **77**  
mer spot. To east, Mt. Shasta and Dunsmuir, Calif.

**305** Ft. Jones Radio range. Airway par- **57**  
allels main highway for some distance. To east is Mount Shasta (14,161 ft.) once a mighty glacier peak.

**315 Yreka and Montague.** In the **47**  
Shasta Valley stock-raising section.

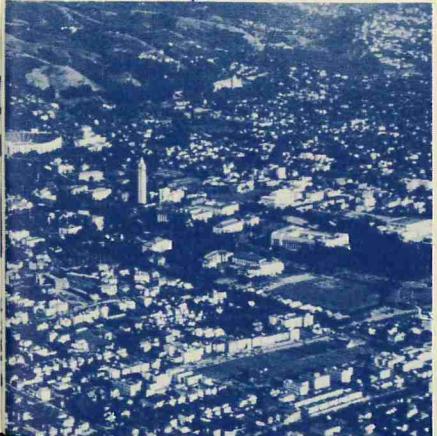
**348 Ashland, Oregon.** (Pop. 4,744). A **14**  
shipping and trading point. Two peaks to east are Mts. Ashland and Wagner.

Surface transportation routes follow sinuous courses over the ridges which form the boundary between Oregon and California, but plane pursues a bee line. To west is Siskiyou National Forest.

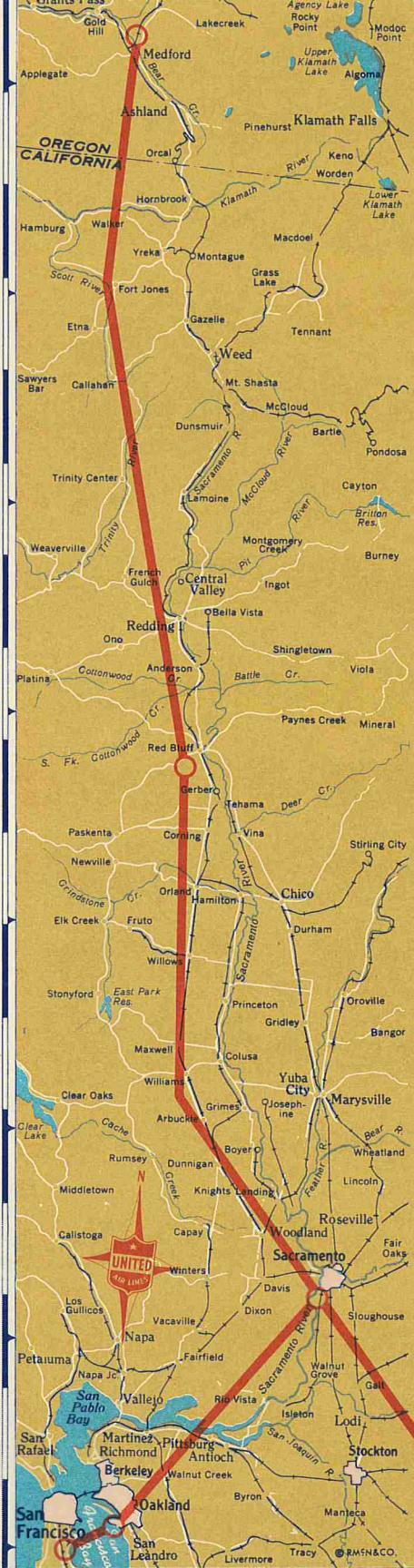
A Hudson's Bay company representative crossed these mountains in 1828. During a storm he lost his bob-tailed running horse. Friends named the place "Pass of the Siskiyou"—Siskiyou meaning "bob-tailed horse" in the Cree language. The name was later adopted for entire range.

**362 Medford, Oregon.** Airway leads **0**  
over fertile valley with numerous orchards. To the south may be seen the Siskiyou Mountain Range.

University of California



Giant Redwood Trees



## MEDFORD — PORTLAND

Northbound  
read down  
Miles from  
Medford

## Medford—Portland

Southbound  
read up  
Miles from  
Portland

**0 Medford, Oregon.** (Pop. 11,281). ~~222~~  
Trading center for Rogue River Valley; important shipping point. An air-minded city, Medford maintains a splendid airport just five minutes from town. City is also gateway to Crater Lake National Park and a mecca for hunters and fishermen.

**Air Mileages:** Portland, 222 mi. (1½ hrs.)  
Seattle, 357 mi. (2½ hrs.); Vancouver, 487  
mi. (4¼ hrs.).

**5** Crossing group of hills on edge of **217**  
Rogue River Valley, comprising a million fer-  
tile acres, noted for fruit-raising.

**38** South Umpqua River. Near this ~~184~~ point is Tiller, Ore., a small Indian village. To east is famed Crater Lake Nat'l Park, at extreme southern end of Cascade Mountain Range. Lake is over 5,000 feet above sea level and crater is largest in nation.

65 Crossing North Umpqua River, fisherman's paradise. To west is Roseburg, Oregon. (Pop. 4,924.) Flight is over forested area.

**97 Cottage Grove, Oregon.** To west 125  
of plane.

**115 Eugene, Oregon.** (Pop. 20,838). **107**  
On the McKenzie River. Location of University of Oregon. Company radio station at Eugene airport. Route leads over timber area.

**146 Albany, Ore. (Pop. 5,654) to west. 70**  
Crossing Santiam River.

**166 Salem, Ore. (Pop. 30,908). Capital 56 of state. Mt. Jefferson (10,495 ft.) to east**

183 Silverton, Oregon. Large lumber 33  
mill.

Plane flies over Willamette Valley, 100 **15** miles long and 50 miles wide. Mt. Hood to

8 222 Portland, Ore.

## UNITED'S PACIFIC COAST AIRWAY

The nation's oldest north-and-south airline is the San Diego-Los Angeles-San Francisco-Oakland-Portland-Tacoma-Seattle-Vancouver, B. C., route of United Air Lines, pioneered by Pacific Air Transport, a predecessor company, in 1926.

When the air traveler of 1926 flew from Los Angeles to Seattle, he started out at midnight and landed in Seattle at two o'clock in the afternoon, after a flight of fourteen hours.

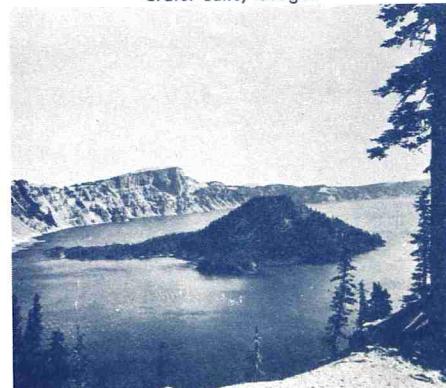
Today Seattle is just a 7 hour flight from Los Angeles, and other cities have been brought correspondingly close together. United's 4-engined, postwar Mainliners, now on order, will cut travel time between Seattle-Tacoma-Los Angeles to 4½ hours.

In the first year of operation, the Pacific coast airway served seven cities: Seattle, Portland, Medford, San Francisco, Fresno, Bakersfield and Los Angeles.

Today the Pacific coast route serves seventeen cities, with the following included in addition to those listed before: Vancouver, B.C., Bellingham, Salem, Eugene, Sacramento, Oakland, Monterey (Del Monte), Salinas, Santa Barbara and San Diego. Also, Spokane, Walla Walla, Pendleton, Boise and Reno, while not served directly by the Pacific coast route, are on transcontinental routes of United with close connections to seaboard cities in California, Oregon and Washington. Four more cities will be served when equipment is available. These are Stockton, Modesto, Merced, and Visalia—all in California.

With additional airports and airway facilities now available, United is continuing its policy of adding cities on this important coastal route and recently applied for 14 additional cities between Seattle and San Diego.

### Crater Lake, Oregon



## Cannon Beach, Oregon



# PORTLAND — SEATTLE — VANCOUVER

Northbound  
read down  
Miles from  
Portland

Portland—Vancouver

Southbound  
read up  
Miles from  
Vancouver

Northbound  
read down  
Miles from  
Portland

Portland—Vancouver

Southbound  
read up  
Miles from  
Vancouver

**0 Portland, Oregon.** (Pop. 305,394). **275**  
The "Rose City"—shipping, industrial and commercial center. Portland's new airport is one of the finest in the country.

**Air Mileage:** To Medford, 222 (1½ hrs.); to San Francisco-Oakland, 584 (4 hrs.); to Los Angeles 911 (6¾ hrs.); to San Diego, 1,035 (8 hrs.). **East:** to Salt Lake, 688 (4¾ hrs.); to Chicago, 1,974 (13¼ hrs.); to New York, 2,721 (17¾ hrs.)

**5 Vancouver, Wash.** (Pop. 18,788). **270**  
Founded in 1824 by Hudson's Bay Company. Here the Columbia, a mile wide, forms boundary between Washington and Oregon. Mt. Hood (11,253 ft.) visible to east.

**20 St. Helens, Oregon.** (Pop. 4,304). **255**  
On west bank of river.

**23 Woodland, Wash.** Airway follows **252** course of Columbia River.

**39 Kelso, Wash.** (Pop. 6,749) and **236**  
**Longview, Wash.** (Pop. 12,385). Lumbering towns at confluence of Columbia and Cowlitz rivers. Here the Columbia, after flowing northward from Portland, turns west to the sea.

**80 Centralia, Wash.** (Pop. 7,414) and **195**  
Chehalis, Wash. (Pop. 4,857). Crossing Cowlitz River.

**91 Roy, Wash.** To the west is **184** Olympia, state capital. (Pop. 13,254). Plane crosses Nisqually River. A Rainier Park glacier is at its source.

**111** Flight is over the broad Nisqually **164** Prairie. Fort Lewis, Wash., one of the largest army posts in area on Pacific Coast.

**117 Tacoma, Wash.** (Pop. 109,408). **158**  
Industrial lumbering and shipping center and gateway to Rainier National Park. Tacoma and Seattle are completing a large, modern airport midway between the two cities.

**145 Seattle, Wash.** (Pop. 408,815). **130**  
Gateway to Alaska and the Orient. Largest city in the Pacific Northwest. Virile industrial, shipping, manufacturing and supply metropolis of its area. Famous as home of the Boeing Aircraft Company and the Flying Fortresses. United not only operates north to Vancouver and south to San Diego, but also its pioneer through-service to Chicago, Washington, Philadelphia, New York, Boston and many other eastern cities.

**175 Everett, Wash.** (Pop. 30,224). **100**  
An important port on Puget Sound. Noted for lumber milling. Airway parallels Puget Sound, the world's largest inland sea.

**207 Mt. Vernon, Wash.** (Pop. 4,278). **68**  
On Skagit River. Heart of rich dairying and farming region. Far to the west may be seen broad Strait of Juan de Fuca, shipping outlet from Washington to British Columbia to Pacific Ocean.

**233 Bellingham, Wash.** (Pop. 29,314). **42**  
Lumber milling, fishing and shipping activities. East is Mt. Baker (10,750 ft.) in Cascade Range. A national forest and tourist attraction.

**251 International Boundary line** is **24** crossed near Blaine, Wash. To west of flight is lower end of Strait of Georgia and beyond is Vancouver Island, on which Victoria, B. C., capital of province, is located.

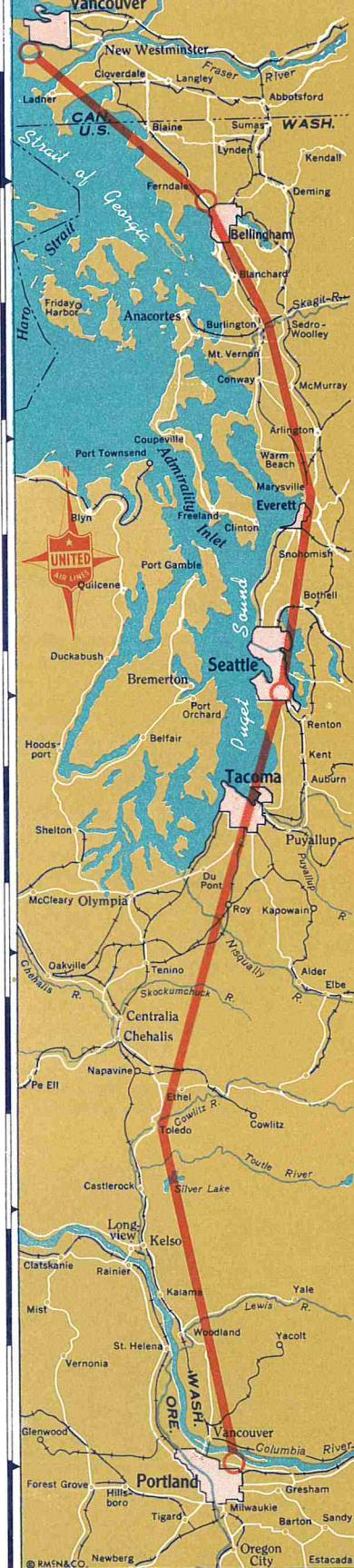
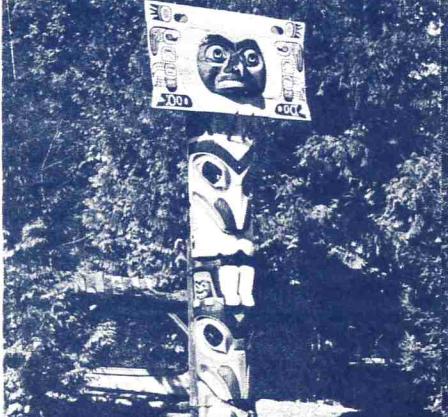
**275 Vancouver, B. C.** (Pop. 271,597). **0**  
Largest city in British Columbia. Terminal of Trans-Canadian railways and gateway to Alaska, the Orient and Australia. City is a tourist mecca. Vancouver airport from which United operates is 6 miles from the city and United connects with Trans-Canada Air Lines which serves numerous Canadian cities from Vancouver to Montreal.

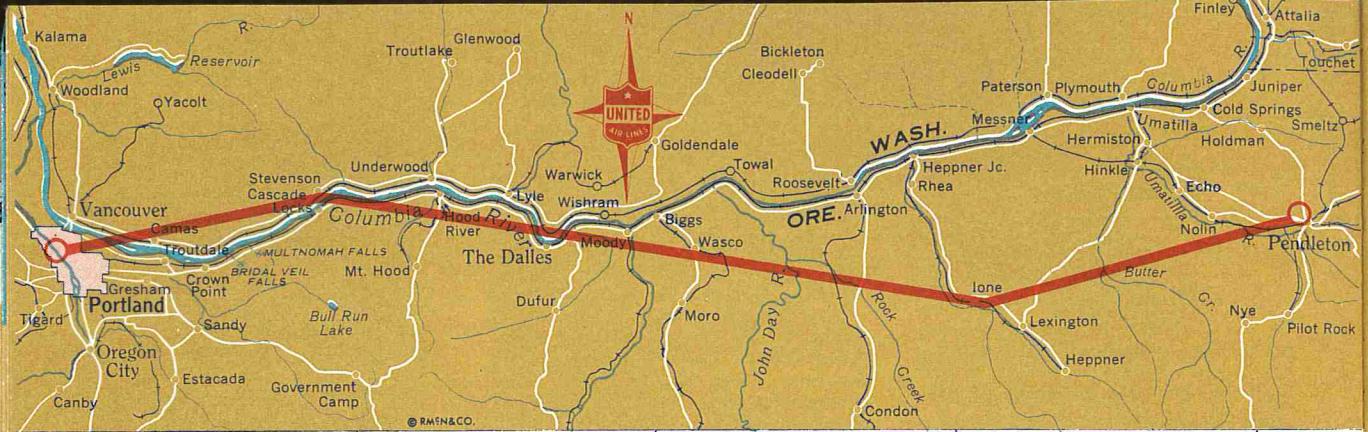
**Air Mileage:** To Seattle, 123 miles. (¾ hr.) **9**

Rainier National Park



Indian Totem, Vancouver, B. C. (CNR Photo)





## PORTLAND—PENDLETON

Eastbound  
read down  
Miles from  
Portland

Portland—Pendleton

Westbound  
read up  
Miles from  
Pendleton

Eastbound  
read down  
Miles from  
Portland

Portland—Pendleton

Westbound  
read up  
Miles from  
Pendleton

Eastbound  
read down  
Miles from  
Portland

Portland—Pendleton

Westbound  
read up  
Miles from  
Pendleton

**0 Portland, Ore.** (Pop. 305,394). Fam-**189**ous as "City of Roses," Portland is a shipping, rail and industrial center, located on Willamette River. **Air Mileage:** to Pendleton, 189 mi. (1½ hrs.); **East:** to Salt Lake, 688 mi. (4½ hrs.); to Chicago, 1,974 mi. (13½ hrs.); to New York, 2,721 mi. (17½ hrs.); **North:** to Seattle, 145 mi. (1 hr.); **South:** to Medford, 222 mi. (1½ hrs.); to San Francisco, 584 mi. (4 hrs.); to Los Angeles, 911 mi. (6½ hrs.); to San Diego, 1,035 mi. (8 hrs.).

**16 Troutdale, Ore.** founded in 1851. **173**

**23 Crown Point, Ore.** on summit of **166** 750-foot cliff, marks western gate of scenic Columbia River Gorge. This spectacular channel of the Columbia is walled by sheer palisades of basalt and evergreen mountains. River is 1,400 miles long, 7 miles wide at mouth and is navigable for 400 miles. Second largest navigable river in U. S.

**30 Bridal Veil Falls, Ore.** On Wash- **159** ington side of Palisades.

**34 Multnomah Falls, Ore.**, 620 feet **155** 10 high, the second highest waterfall in U. S.

**36 Beacon Rock**, an 850-foot monolith **153** on Washington side of river, named by Lewis and Clark in 1805.

**40 Bonneville, Ore.**, State fish hatch- **149** ery here. Directly on the course is the great Bonneville Dam, one of the largest river engineering projects ever undertaken by the federal government, the dam having been built for water storage as well as power development.

**44 Cascade Locks, Ore.**, connecting **145** lower and upper parts of river. An early settlement was attacked by Indians in 1856. Here is spot where fabled "Bridge of Gods," a legendary natural bridge of rock, was supposed to have spanned the river.

**60 Hood River, Ore.** (Pop. 3,280), at **129** head of Hood River Valley, noted for fruit and produce. To southwest, Mt. Hood (Alt. 11,253 ft.), located there is Timberline Lodge famous resort of the Northwest; to north, Mt. Adams (Alt. 12,307 ft.); Mt. Rainier (Alt. 14,408 ft.) and Mt. St. Helens (Alt. 9,671 ft.).

**70 Lyle, Wash.**, marking eastern end **119** of Columbia River Gorge.

**76 The Dalles, Ore.** (Pop. 2,975). **113** Here the Columbia swirls through the Big Eddy Rapids; Celilo Canal skirts the rapids. Meriwether Lewis and William Clark reached this point with their expedition in 1805.

**124 Arlington, Ore.**, with Roosevelt, **65** Wash., across river. Columbia river was discovered by Capt. Gray of Boston in 1792.

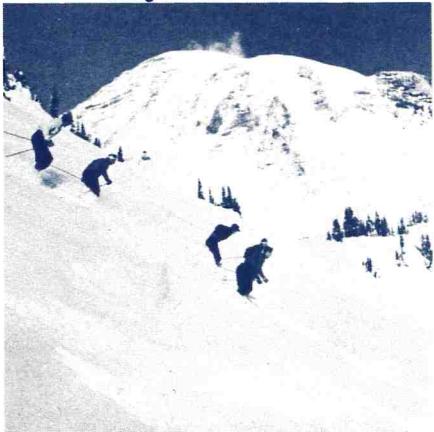
**165 Hermiston and Stanfield, Ore.**, **24** to north in extensively irrigated districts.

**189 Pendleton, Ore.** (Pop. 8,847), on **0** Umatilla River. Scene of the famous annual Roundup, for a third of a century a classic exhibition of horsemanship and western sports. Center of rich grain area. **Air Mileages:** To Portland, 189 mi. (1½ hrs.); Chicago, 1,785 mi. (12 hrs.); New York, 2,532 mi. (16½ hrs.).

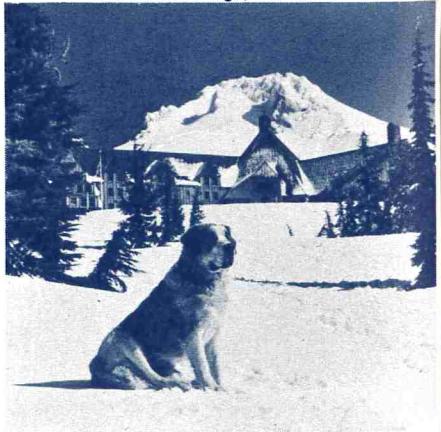
Pacific Northwest Lumbering

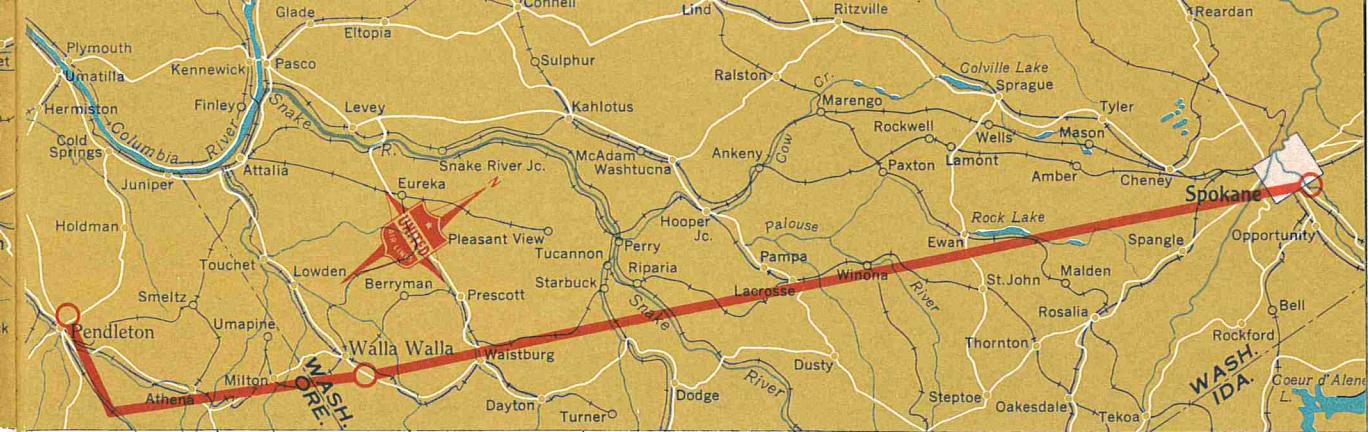


Skiing in Pacific Northwest



Timberline Lodge, Mt. Hood





## PENDLETON—SPOKANE

Northbound  
read down  
Miles from  
Pendleton

Pendleton—Spokane

Southbound  
read up  
Miles from  
Spokane

Northbound  
read down  
Miles from  
Pendleton

Pendleton—Spokane

Southbound  
read up  
Miles from  
Spokane

**0 Pendleton, Oregon.** (Pop. 8,847). **158**  
This is a business center as well as famous rodeo city, and here passengers from Walla Walla, and Spokane enplane and deplane from United's overnight coast-to-coast Mainliners to the East. There is also direct United service from Pendleton to Portland and Seattle.

**38 Walla Walla, Wash.** (Pop. 18,109). **120**  
Center of the grain and fruit area, and largest city in this section of eastern Washington. Is one of the oldest cities in the West, having been founded by the pioneer party of Marcus Whitman.

**135** Airway leads over the Big Bend **23** wheat country, rich grain-producing area of the Inland Empire, known as the "Bread Basket of the West". To east may be seen traces of lava flow. Geologists claim this region was once the bed of the Columbia River prior to volcanic upheavals. 25 miles to east is cone-shaped mountain to which small band of American soldiers successfully retreated on being surrounded by overwhelming band of Indians.

**140 Cheney, Washington.** To the **18** west, an important grain shipping point.

**146** Hangman's Canyon, where several **12** Indians were hanged following attack on American soldiers during early days of Indian warfare.

**158 Spokane, Washington.** (Pop. **0** 136,000). Second largest city in Washington. Principal activities include transportation and manufacturing. City is in center of the productive Inland Empire and trading center for the Idaho Panhandle, noted for its large production of minerals, timber, fruit and agricultural products. **Air Mileage:** to Pendleton, 158 mi. (1½ hrs.); Salt Lake, 655 mi. (5 hrs.); Chicago, 1,941 mi. (12½ hrs.); New York, 2,688 mi. (17½ hrs.).

government airway engineers in 1919 for the cross-continent air mail line which the Post Office Department was then projecting. Flying on all divisions of United's present New York-Chicago-Pacific Coast airway began in 1920. The airway was lighted for night flying by 1924. Shortly after United's predecessor divisions took over the operation of the route in 1927, company engineers developed the world's first successful two-way plane-ground radio telephone communication system. Soon after, the first radio range facilities were developed by the government and installation was made on this route. Thus in the twentieth century does United's Main Line airway write the latest chapter in the achievements in transportation over the great mid-continent Overland Trail, for more than 100 years the most important channel of coast to coast transport and communication —this century old route becomes an even greater national asset; the world's busiest long distance airway, the route of the nation's oldest air transport system. United provides the shortest, fastest service between the Atlantic Coast, Great Lakes and Middle West to most Pacific Coast cities.

Columbia River Gorge

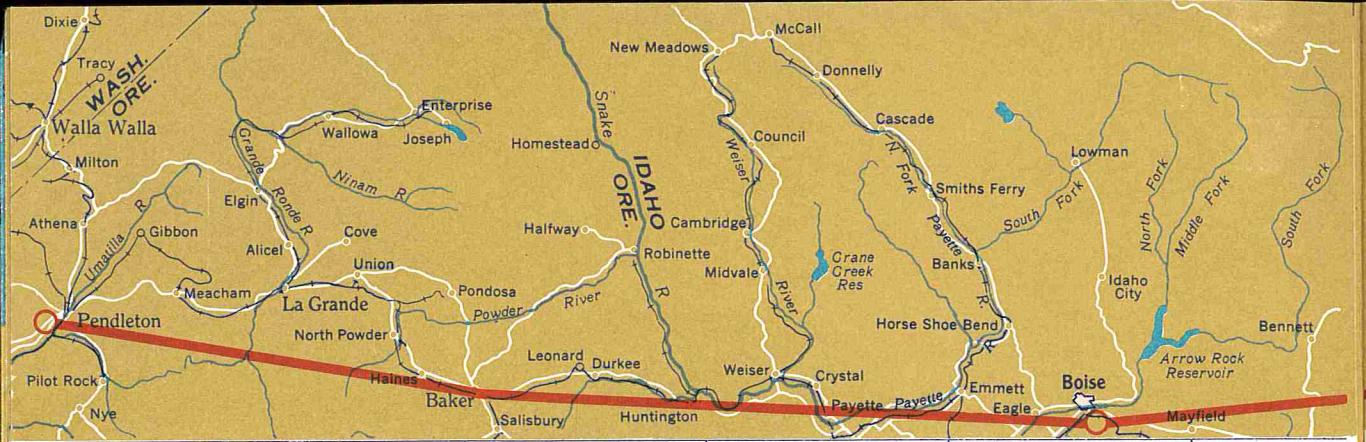


Indian Chief of Northwest



Spokane, Washington





## PENDLETON-BOISE

Southbound  
read down  
Miles from  
Pendleton

Pendleton—Boise

Northbound  
read up  
Miles from  
Boise, Ida.

Southbound  
read down  
Miles from  
Pendleton

Pendleton—Boise

Northbound  
read up  
Miles from  
Boise Ida.

Southbound  
read down  
Miles from  
Pendleton

Pendleton—Boise

Northbound  
read up  
Miles from  
Boise, Ida.

**0 Pendleton, Ore.** Flight is over rolling 198 wheat lands which extend from the Blue Mountains beyond the horizon to the northeast. Umatilla Indian Reservation on the northwestern slope of the Blue Mountains.

**17 Meacham, Ore.** The airway fol- 179 lows the course of the Old Oregon Trail, historically colorful travel route of the Pacific Northwest, pioneered more than a century ago. Meacham was an important stop on the old route.

**46 La Grande, Ore.** (Pop. 7,747). 150 Shipping center for the fertile Grande Ronde Valley. The region between Meacham and Weiser, Idaho, is an important part of Oregon's upland cattle empire.

**66 North Powder, Ore.** 130

**77 Baker, Ore.** (Pop. 9,342). Powder 119 River Valley, where Fremont and Kit Carson once made history.

**102 Durkee, Ore.** Situated at end of 94 12 Burnt River Gorge, through which airway

leads. River has chiseled a rugged course through the hills.

**120 Blake's Junction, Ore.** Crossing 76 the Snake River. This point marks the beginning of Snake River Canyon, said to be the deepest river canyon in United States. Although the river follows a remarkably sinuous course, it was named for the Snake Indians. It forms boundary between Oregon and Idaho.

**137 Weiser, Ida.** Located at confluence 59 of Snake and Weiser rivers.

**150 Payette, Ida.** Fruit-raising sec- 46 tion.

**176 Emmett, Ida.** on Payette River, 20 famed for excellent cherries. About 10 miles west is site of Old Fort Boise, where Marcus Whitman abandoned his wagon, the first to travel over the Oregon Trail, and proceeded over the Blue Mountains on horseback to Walla Walla.

**178 Caldwell, Ida.** (Pop. 7,273), and 18

Southbound  
read down  
Miles from  
Pendleton

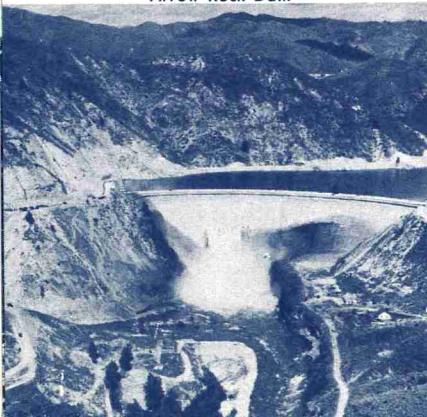
Pendleton—Boise

Nampa (Pop. 12,149), to southwest of course. Airway leads right over irrigated Boise Valley, "home of the world-famed Idaho baking potato; also noted for dairying, fruit raising and poultry. About 20 miles to northeast may be seen the Boise Basin, in which towns of Centerville and Idaho City are located. Famous as a placer gold mining area, it is estimated that over \$300,000,000 in gold dust has been taken out of the Basin since the Civil War.

**Air mileage:** to Salt Lake City, 301 mi. (1½ hrs.); Chicago, 1,587 mi. (10½ hrs.); New York, 2,334 mi. (16 hrs.); Pendleton, 196 mi. (1½ hrs.); Spokane, 350 mi. (3½ hrs.); Portland, 397 mi. (2½ hrs.); Tacoma, 516 mi. (4 hrs.); Seattle, 543 mi. (4½ hrs.).

**196 Boise, Ida.** (Pop. 26,130). State capital, founded as a trading post on the Old Oregon Trail in 1862. Noted as a banking and distributing center for Idaho and eastern Oregon. Airway to Salt Lake City follows Old Oregon Trail, 10 miles east of Boise is famous Arrowrock Reservoir and hydroelectric plant. Arrowrock is one of the highest irrigation dams in world.

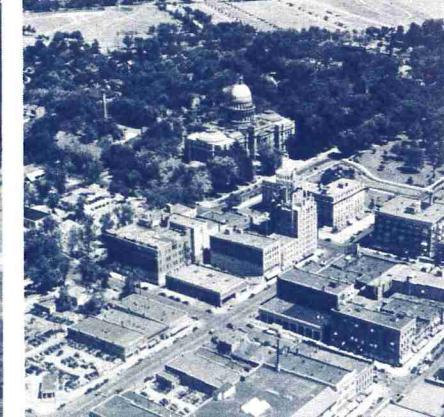
Arrow Rock Dam

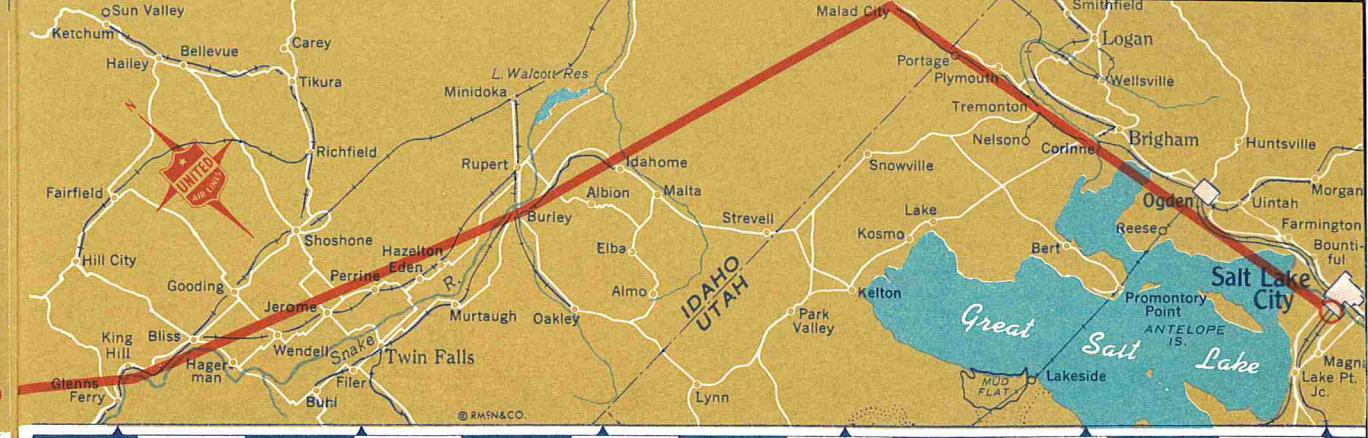


Fishing in Northwest



Boise Civic Center





## BOISE—SALT LAKE CITY

Southbound  
read down  
Miles from  
Boise

Boise—  
Salt Lake City.

Northbound  
read up  
Miles from  
Salt Lake City

Southbound  
read down  
Miles from  
Boise

Boise—  
Salt Lake City.

Northbound  
read up  
Miles from  
Salt Lake City

Southbound  
read down  
Miles from  
Boise

Boise—  
Salt Lake City.

Northbound  
read up  
Miles from  
Salt Lake City

**0 Boise, Ida.**

**301**

**94 Bliss, Ida.** situated on a plateau. **207**

**106 Jerome, Ida.** To southwest may be **195** seen **Twin Falls, Ida.** (Pop. 11,851), one of state's more populous cities, close to famous Shoshone Falls.

**116 Sun Valley, Ida.** This nationally **185** famous winter and summer resort, created by Union Pacific Railway, is approximately 80 miles north of Shoshone. In peacetime, United Air Lines and Union Pacific provide an excellent air-rail service, utilizing planes from the east to Salt Lake City or Pocatello, Idaho, where transfer is made to Union Pacific trains, providing virtually overnight service from Atlantic seaboard, Great Lakes, and Midwest points as well as from the Pacific Coast, to Sun Valley.

**126 Wilson Lake Reservoir.** To northeast **175** is noted "Craters of the Moon" National Monument, a desolate volcanic area placed under supervision of National Park Service in 1924.

**145 Burley, Ida.** (Pop. 5,329), with **156** radio station and intermediate landing field. A short distance from Sun Valley is Ketchum, Ida., whose typically western atmosphere interests visitors.

**156 Albion, Ida.** **145**

**162 Idaho City, Ida.** to south of airway. **139** Airway follows route of the Holiday Overland Stage line which was first scheduled passenger transportation system from eastern points to Idaho. At one time journey from Kansas to Boise required 15 days and fare was \$300. Now flight over same route requires 10 hours and but fraction of fare.

**225 Malad City, Ida.** Once the principal headquarters for this area, and a stopping place for coaches of the old Overland Stage. Sixteen miles southeast, in Weston Canyon, Pass of Standing Rock, named by John C. Fremont in 1843. **76**

**238 Crossing Idaho-Utah state line.** **63**

**247 Plymouth, Utah.** Dry-farming and **54** stock-raising community, settled 1869.

**258 Tremonton, Utah,** ships **100,000** **43** turkeys annually. Logan, Utah, to east, on east side of fertile Cache Valley.

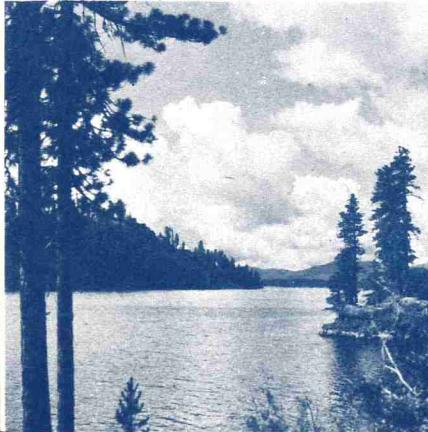
**273 Brigham City, Utah,** is center of **28** district famed for peaches.

**293 Ogden, Utah** (Pop. 43,688). Second largest city in Utah, built on deltas of Ogden and Weber rivers, where they once emptied into prehistoric Lake Bonneville. Mt. Ogden to east of city. **8**

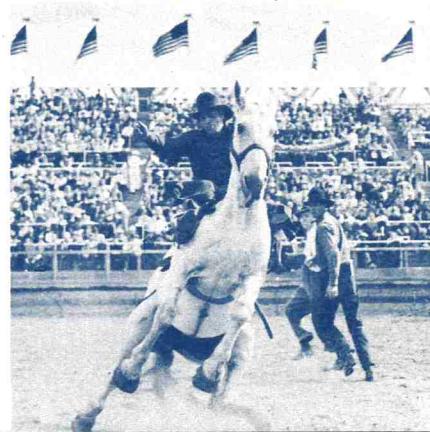
**301 Salt Lake City, Utah** (Pop. 175,- **0** 000). **Air Mileage:** to Boise, 301 mi. (2 hrs.); to Pendleton, 497 mi. (3½ hrs.); to Spokane, 655 mi. (5½ hrs.); to Portland, 688 mi. (4½ hrs.); to Seattle, 833 mi. (6 hrs.); to Vancouver, 956 mi. (7½ hrs.). State capital and seat of government of the Church of Jesus Christ of Latter Day Saints (Mormons), founded in 1847 by Brigham Young. Mormons left the Missouri River in April, 1847, and reached the shore of Salt Lake in July after extreme hardships. It was here that irrigation was first used successfully on a large scale in the United States.

**13**

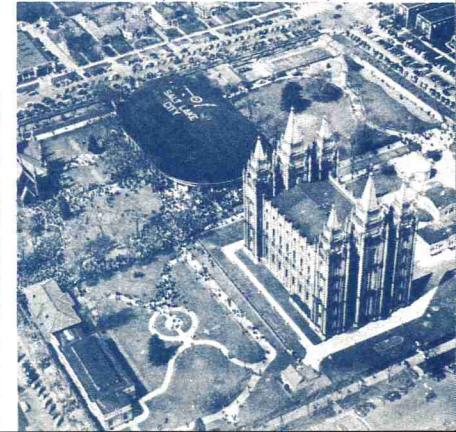
Payette Lake, Idaho

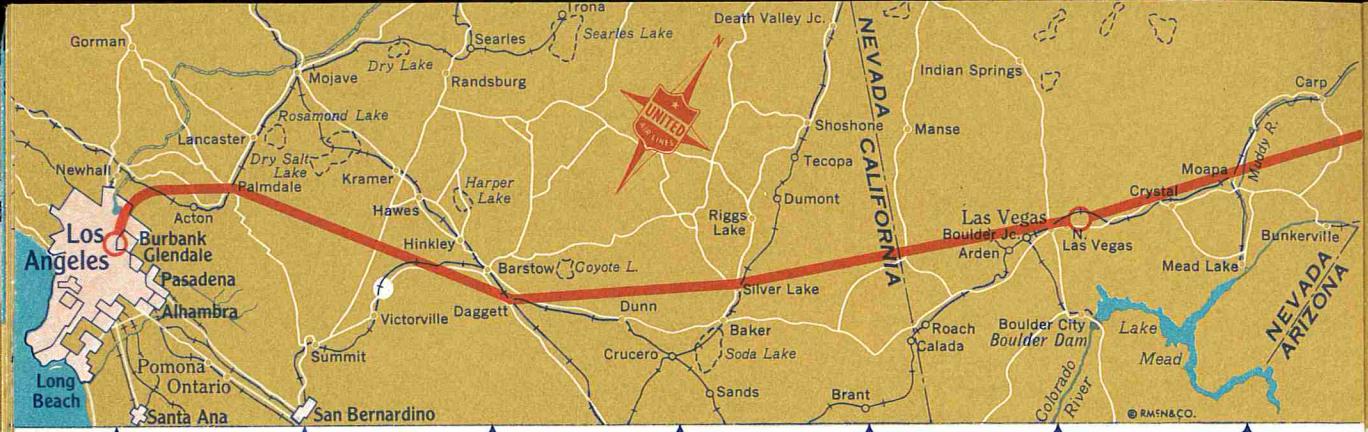


Pendleton Round-Up Scene



Temple at Salt Lake City





## LOS ANGELES—SALT LAKE CITY

(This route is operated by Western Air Lines which provides connecting service at Salt Lake City with United)

Eastbound  
read down  
Miles from  
Los Angeles

Los Angeles—  
Salt Lake City.

Westbound  
read up  
Miles from  
Salt Lake City

Eastbound  
read down  
Miles from  
Los Angeles

Los Angeles—  
Salt Lake City.

Westbound  
read up  
Miles from  
Salt Lake City

Eastbound  
read down  
Miles from  
Los Angeles

Los Angeles—  
Salt Lake City.

Westbound  
read up  
Miles from  
Salt Lake City

**0 Los Angeles** (Lockheed Air Terminal, 590 Burbank). Largest city on the Pacific Coast, distinguished by phenomenal population gains each decade, and a dominant industrial, shipping, aircraft producing and motion picture center, as well as being famous as the great year-around playground.

**Air Mileages:** To Las Vegas, 235 mi. (1½ hrs.); Salt Lake City, 590 mi. (3½ hrs.); Chicago, 1,890 mi. (11¾ hrs.); New York, 2,642 mi. (16½ hrs.); San Diego, 124 mi. (54 min.); to San Francisco, 327 mi. (2 hrs.); to Portland, 911 mi. (7 hrs.); to Seattle, 1,056 mi. (8 hrs.).

**24 Palmdale, Calif.** 566

**52 Muroc Dry Lake.** Smooth and hard 538 as a billiard table.

**87 Barstow, Calif.** Rail town. We are 503 flying over the Boulder Dam-Los Angeles 14 power line.

**92 Daggett Calif.**, Once the borax 498 center of the world. Flight leads over an interesting series of dry lakes.

**182 Old Spanish Trail.** Our flight is over 408 one of the earliest trails in the Pacific Southwest, and the course is also that of the Mormon pioneer trail of 1849.

**235 Las Vegas, Nev.** (Pop. 8,422). 355 Gateway of tourist travel to Boulder Dam, Lake Mead and sunny desert country. This picturesque town is typically western with its legalized gambling and other attractions of the old frontier.

**Lake Mead**, visible to south of route, was created by Boulder Dam, and is the largest man-made lake in the world.

**Boulder Dam** is 752 ft. high, 650 ft. thick at the base. It cost \$165,000,000 to build and its construction was one of the greatest engineering feats in the history of the world.

The great dam tamed the turbulent Colorado River, storing up its waters for irrigation and for power. Much of the power developed at Boulder Dam is now used in Los Angeles.

**Boulder City**, at the western end of Lake Mead, is a model city built by the U. S. Government in connection with the Boulder Dam project.

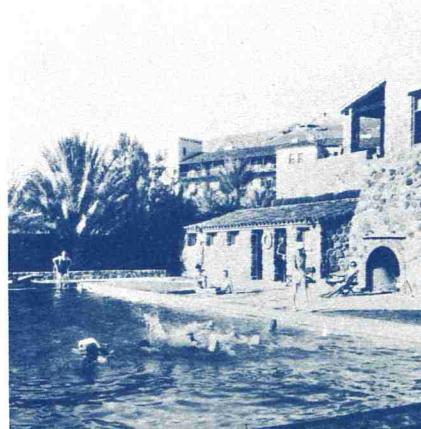
In peacetime, tours of a few hours or days by automobile or boat are available from Las Vegas. These tours are popular with those who wish to see Boulder Dam, Lake Mead, and the sunny desert country west of Las Vegas.

**265 Valley of Fire.** Brilliantly colored 325 and sharply sculptured area in the northern portion of Muddy Mountains. Bright hues of red sandstone vary in color and brilliance with the passing of the sun. Excavations have revealed that this area was one of the very earliest civilizations in North America.

Hollywood at Night

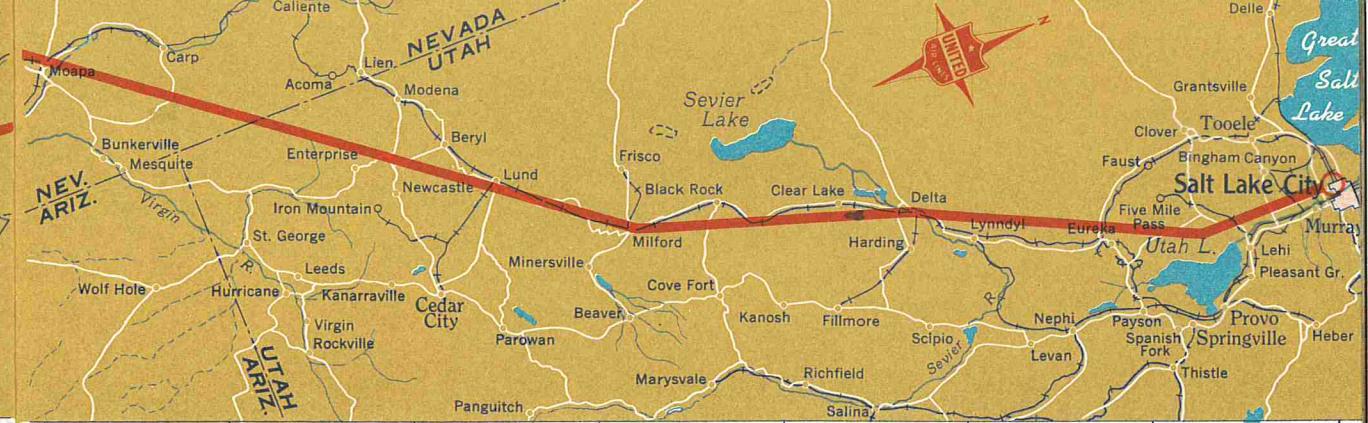


Swimming at Desert Resort



Desert Bathing at Las Vegas





## LOS ANGELES—SALT LAKE CITY

Eastbound  
read down  
Miles from  
Los Angeles

Los Angeles—  
Salt Lake City.

Westbound  
read up  
Miles from  
Salt Lake City

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Salt Lake City

Eastbound  
read down  
Miles from  
Los Angeles

Los Angeles—  
Salt Lake City.

Westbound  
read up  
Miles from  
Salt Lake City

**297 St. George, Utah.** The agricultural center of Utah. This is known as Utah's "Dixie," indicated by the "D" on the hills to the east. Here Mormons experimented with cotton because of mild climate.

**315 Dixie Forest,** reputed to contain 275 36,000 deer.

**343 Cedar City, Utah,** gateway to 247 Cedar Breaks, Zion National Park, and Bryce Canyon, where nature has spectacularly blended white and red sandstone into one of the nation's most interesting geological displays. Zion is a canyon over one-half mile deep. Besides the amazing colors there are numerous odd creations of erosion. Monoliths rise to a height of 4,000 feet. During the summer certain day flights are flown over Cedar Breaks and Zion National Park.

**379 Milford, Utah.** Center of mining 211 districts. One of the numerous federal radio beam stations is located here. Adjacent country was settled by Mormons in 1856, and here the state's first mining operations were conducted.

**Escalante Desert.** Named for Spanish padre who unsuccessfully sought to cross the desert in 1776. 50 years later the trail was blazed by pioneers.

**434 Fillmore, Utah,** to the east. 156 First capital of Utah. Abandoned in favor of Salt Lake, center of population. Camels once roamed here after the last ice age.

**442 Sevier River,** easily identified by 148 its winding curves, is the largest stream in central Utah.

**470 Pavant Valley.** Utah's granary. 120

**510 Flight** is over Sevier Desert. 80

**530 Tintic Mining District,** to the south. 60 Famous silver producer. Intermediate field located near Tintic.

**550 Cedar Valley.** Early Army Post and 40 Indian hunting and ceremonial ground. Old Pony Express Trail. Utah Lake to the east. Spanish padres camped here in 1776.

**Provo,** geographical center, east shore of Utah Lake.

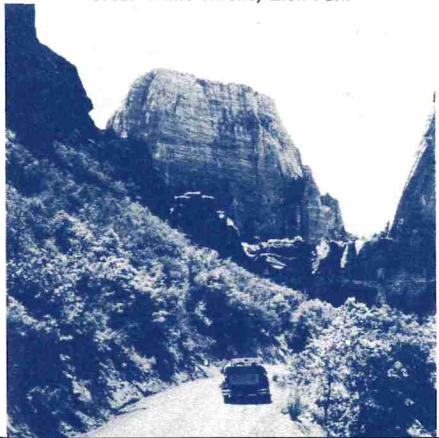
**555 Utah Lake**—First visited by white 35 men when Spanish Pádres camped on its shores in 1776, can be seen to the east. Jordan River, east of course, draining from Utah Lake is one of the main tributaries to Great Salt Lake.

**568 The Ancient Shoreline:** Levels of 22 Lake Bonneville. Prehistoric body of water. Can be seen on California slope of hills 20 miles south of Salt Lake. Lake Bonneville at one time included Utah Lake and Sevier Lake as well as Great Salt Lake and extended over an area twenty times greater than that of the present lake. Great Salt Lake is 80 miles long, 35 miles wide, average depth 12 feet, and is 4 times saltier than the ocean.

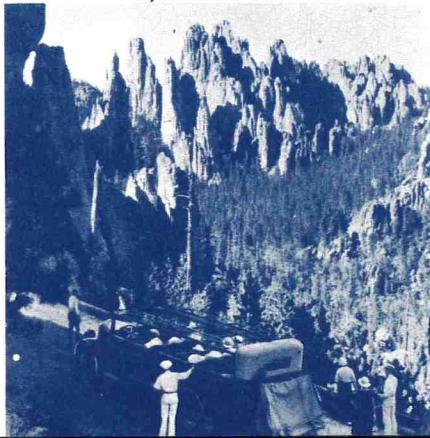
**590 Salt Lake City, Utah** (Pop. 175,000) 0 A hub of rail and air transportation, including connecting airplane service to Yellowstone Park—only an hour's flight away. Services from here include those of United to the Pacific Northwest and San Francisco; Western Air Lines' connecting flights to Los Angeles.

15

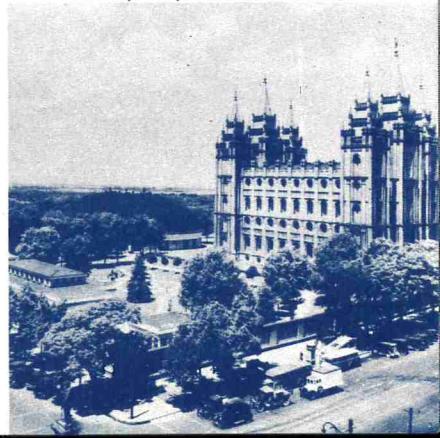
Great White Throne, Zion Park

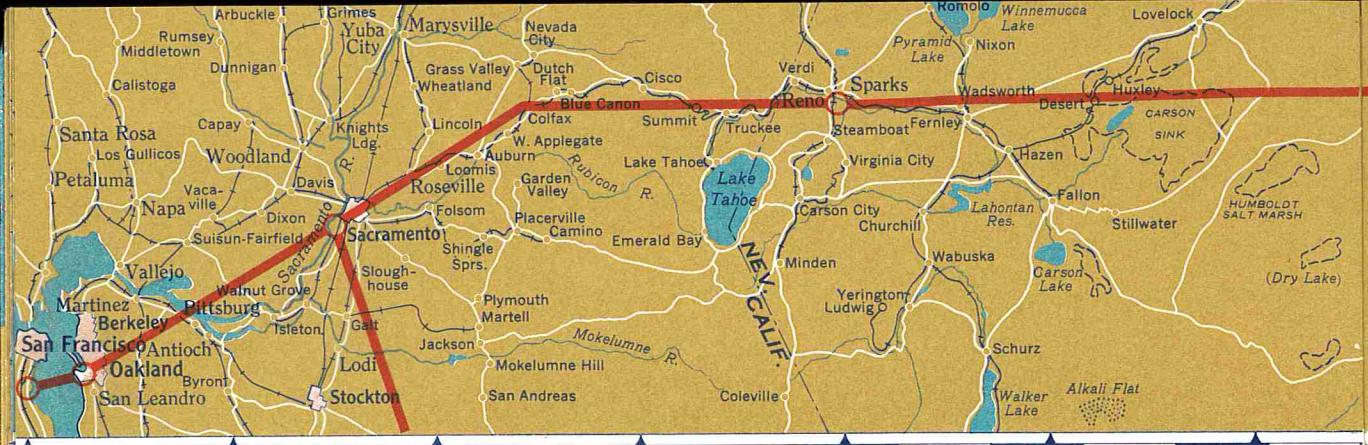


Bryce National Park



Temple Square, Salt Lake City





## SAN FRANCISCO — SALT LAKE CITY

Eastbound  
read down  
Miles from  
San Francisco

San Francisco—  
Salt Lake City

Westbound  
read up  
Miles from  
Salt Lake City

Eastbound  
read down  
Miles from  
San Francisco

San Francisco—  
Salt Lake City

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read up  
Miles from  
Salt Lake City

Eastbound  
read down  
Miles from  
San Francisco

San Francisco—  
Salt Lake City

Westbound  
read up  
Miles from  
Salt Lake City

**0 San Francisco, Calif.** (Pop. 659,917). **674**  
A financial and shipping center of Pacific Coast and a sea and air gateway to Orient, Hawaii and Australia. Situated on Peninsula, San Francisco has one of largest land-locked harbors in world, entrance to which is through Golden Gate. San Francisco Airport is Western Operations and Maintenance Base for United's nation-wide system. From New York to San Francisco is 2,683 miles, a saving of 630 miles over rail mileage and 372 miles shorter than the Lincoln Highway.

**Air Mileages:** To Reno, 191 mi. (1 $\frac{3}{4}$  hrs.); Salt Lake City, 637 mi. (4 hrs.); Denver, 1,097 mi. (7 $\frac{1}{2}$  hrs.); Chicago, 1,923 mi. (11 $\frac{3}{4}$  hrs.); New York, 2,683 mi. (16 $\frac{1}{2}$  hrs.).

**12 Oakland, Calif.** (Pop. 302,163) **662**  
The Municipal Airport is one of the largest in the U. S. Oakland is an important manufacturing, rail and shipping center. Adjacent are Berkeley, (Pop. 85,547), home of University of California; Alameda, (Pop. 36,256); Richmond, (Pop. 23,642), and Vallejo (Pop. 20,072).

**80 Sacramento, Calif.** (Pop. 105,958). **594**  
State capital, river and rail shipping point for

**16** fruit and rich agricultural district. Army Air

Corps has mammoth air depot here. 77 mi. to San Francisco ( $\frac{1}{2}$  hr.); 122 mi. to Reno ( $\frac{3}{4}$  hr.); 1,848 mi. to Chicago (12 hrs.); 2,595 mi. to New York (16 $\frac{1}{2}$  hrs.).

**102 Roseville, Calif.** (Pop. 6,653). To **572** south is Folsom, location of state prison. Course leads over broad Sacramento Valley, 116 miles long, 12 miles wide. 12,000,000 acres.

**129 Between Weimar, Calif. and 545 Garden Valley** to south, on bend of Middle Fork of American River, is historic Mother Lode where gold was first discovered in California.

**140 Dutch Flat, Calif.** and vicinity, **534** may be seen great areas of bare gravel, evidence of the first placer mining operations to be conducted in the state. In this region are the "ghost towns" of Whisky Diggins, Angel's Camp, Hangtown, Poker Flat, and other former boom mining towns.

**188 Lake Tahoe**, famed natural play- **486** ground, visible to south. Lake is 23 miles long, 13 miles wide, 1,800 feet deep. Part of lake is in California, part in Nevada.

**190 Verdi, Nev.** Plane crosses Ne- **484**

vada-California boundary. Route follows Truckee River.

**191 Reno, Nev.** (Pop. 21,317). "Big- **483** gest little city in world." Largest city in Nevada and trading center of mining and live-stock region. Location of state university.

**193 Sparks, Nev.** (Pop. 5,318). **481**

**220 Wadsworth, Nev.** Airway follows **454** route of Truckee River. Small towns to south are in vicinity of famous Comstock Lode.

**253 Huxley, Nev.** Scattered houses on **421** railroad on edge of desert.

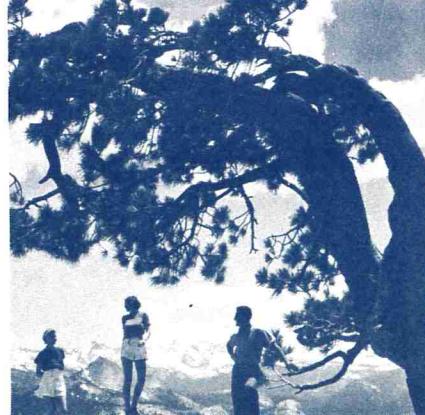
**268 Carson Sink** is lowest part of Carson **406** Desert. It is an alkali region 50 miles in length. In winter it becomes a shallow lake 20 to 25 miles long, but water evaporates in summer. Disappearance of water led to belief it sank into ground, hence the name. One of the driest parts of the United States.

**292 Humboldt Range** to north of route. **382** To the south is Stillwater Range, forming eastern rim of famed Carson Sink. This region was once occupied by former Lake Lahontan. Plane's course is over a series of valleys.

Chinatown, San Francisco

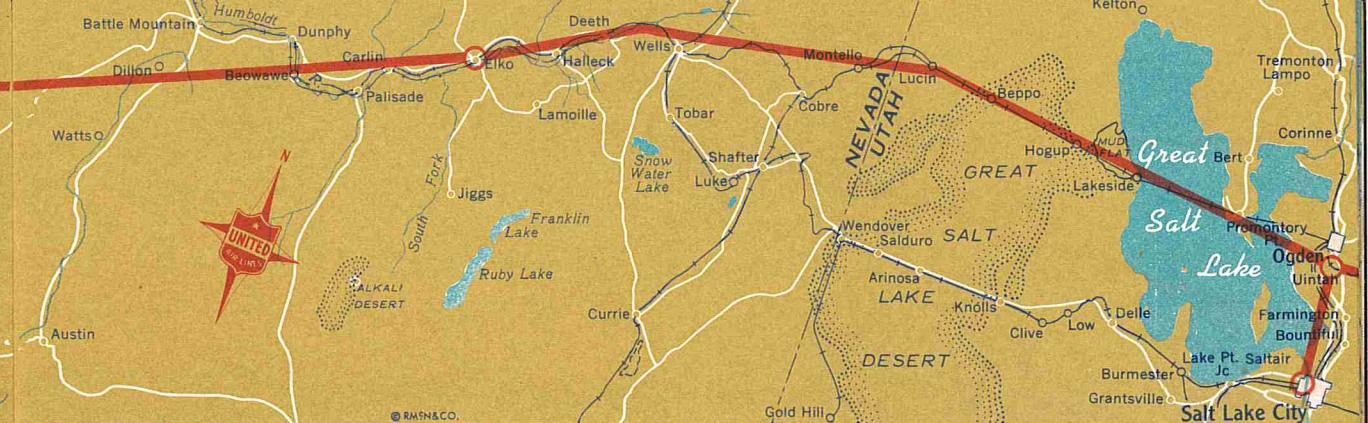


Yosemite National Park



Sacramento Valley





## SAN FRANCISCO — SALT LAKE CITY

Eastbound  
read down  
miles from  
San Francisco

San Francisco—  
Salt Lake City

Westbound  
read up  
miles from  
Salt Lake City

Eastbound  
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miles from  
San Francisco

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Eastbound  
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miles from  
San Francisco

San Francisco—  
Salt Lake City

Westbound  
read up  
miles from  
Salt Lake City

322 Pleasant Valley, aptly named. 352

357 Needle Point, Cinder Cones, along 317 north slope of range to the southwest of Needle Point. These cones are best examples of volcanic form along airway.

367 Dillon, Nev. Plane crosses railroad 307 and Reese River.

377 Battle Mountain, Nev. to north. 297 The Battle Mountain Range was locale of a historic combat between gold-seeking Whites and Piute Indians in 60's.

397 Beowawe, Nev. Notable for tall 277 poplars. "Beowawe" means "gate" in Indian language, and was so named for characteristic formation of hills. Dunphy to north.

412 Palisade, Nev. Five miles south 282 of route, river flows through canyon with steep basaltic walls. A branch of Covered Wagon trail led through here.

418 Carlin, Nev. on Humboldt River. 256 Note large white letter "C" on hillside.

438 Elko, Nev. (Pop. 4,094). 236

467 Deeth, Nev. Mary's River and 207 Tobar Creek to north.

476 East Humboldt Range, south of 198 airway.

487 Wells, Nev. south of airway; 187 supply point for livestock raisers. Below is site of one of principal camping spots on old California Trail, among dozens of deep springs.

508 Pequop Mountains, south of air- 166 way.

536 Nevada-Utah state line. 138

544 Lucin, Utah. Southern outlet 130 for Grouse Creek Valley and terminus of famous Lucin Cutoff, built at cost of \$10,000,000.

564 Crossing Great Salt Lake Desert, a 110 vast glittering plain of white, and one of nation's outstanding geographical wonders. Surface is nearly all white salt, with occasional patches of greasewood. Once a lake bed, the desert is one vast natural landing field.

589 Mud Flat, on edge of Great Salt 85 Lake.

603 Great Salt Lake, the world-famous 71 inland sea.

620 Promontory Point—at an altitude of 54 4,217 ft. Thirty miles to north is point where last spike was driven in first transcontinental railroad, which followed the same strategic overland route now flown by United Air Lines.

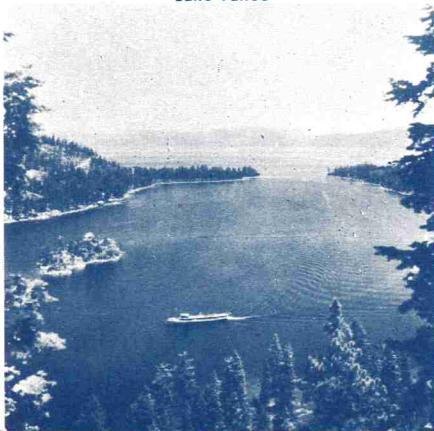
643 Ogden, Utah (Pop. 43,688). 31 Second largest city in Utah, built on deltas of Ogden and Weber rivers, where they once emptied into prehistoric Lake Bonneville.

674 Salt Lake City, Utah. Municipal 0 airport at Salt Lake City, one of the finest in United States, occupies part of bed of Lake Bonneville, original Great Salt Lake in glacial period which stood 900 feet above present level of lake.

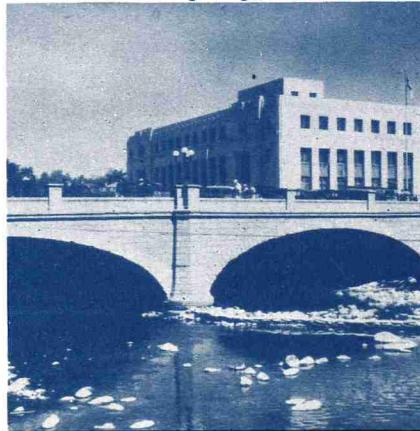
The airplane is a great time-saver in this western country. An example: plane time San Francisco-Salt Lake City is  $3\frac{1}{2}$  hrs.; train time is  $23\frac{1}{2}$  hrs.

**Air Mileages:** To Elko, 199 mi. ( $1\frac{1}{2}$  hrs.); Reno, 432 mi. ( $2\frac{3}{4}$  hrs.); Sacramento, 557 mi. ( $2\frac{3}{4}$  hrs.); San Francisco, 637 mi. ( $4\frac{1}{2}$  hrs.).

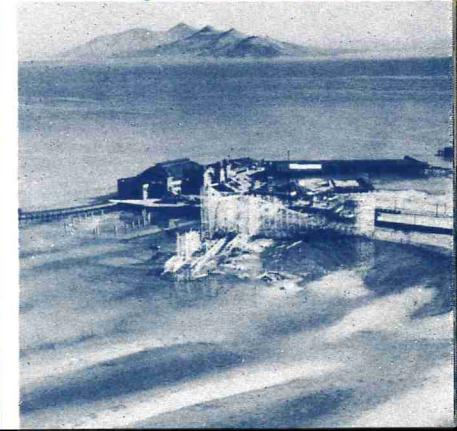
Lake Tahoe

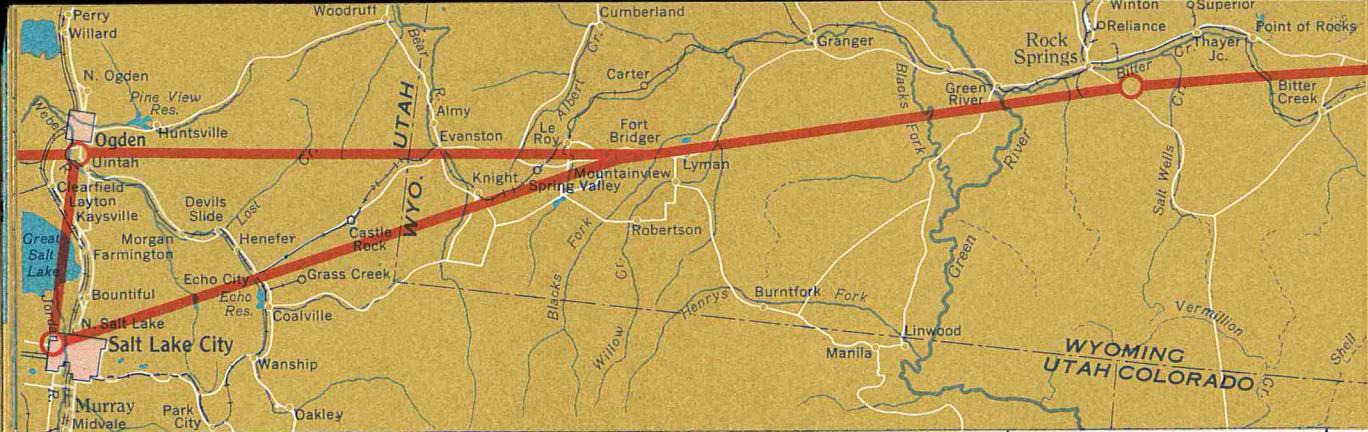


Wishing Bridge, Reno



Bathing Pavilion, Great Salt Lake





## SALT LAKE CITY—CHEYENNE—DENVER

Eastbound  
read down  
Miles from  
Salt Lake City

Salt Lake City—Cheyenne  
and Denver.

Westbound  
read up  
Miles From  
Cheyenne

Eastbound  
read down  
Miles from  
Salt Lake City

Salt Lake City—Cheyenne  
and Denver.

Westbound  
read up  
Miles from  
Cheyenne

Eastbound  
read down  
Miles from  
Salt Lake City

Salt Lake City—Cheyenne  
and Denver.

Westbound  
read up  
Miles from  
Cheyenne

0 Salt Lake City, Utah. **397**

Air Mileages: To Denver, 383 mi. (2½ hrs.); Chicago, 1,297 mi. (7½ hrs.); Cleveland, 1,616 mi. (10½ hrs.); New York, 2,044 mi. (12½ hrs.).

36 Coalville, Utah, and Echo City. **361**  
Here plane crosses highway and railroad, following north-south course of Weber River. Railroad and Lincoln Highway lead north-westward to **Ogden** (Pop. 43,688), while airway proceeds directly to Salt Lake City.

66 Knight, Wyo., to north of route. **331**

95 Fort Bridger, Wyo. Established **302** by Jim Bridger, famous scout and Indian fighter, a century ago and later used by Mormons. A Pony Express and telegraph station in 60's. Now a state historical park.

106 Church Buttes, curiously formed **291** ridges where Mormons are said to have held church services during first migration to Salt Lake in 1847.

121 Granger, Wyo., to north. This **276** section of Wyoming represents some of most historic country of the Frontier West, where 18 Indians disputed way with Mormons, Forty-

Niners, stage coaches, and Pony Express riders.

158 Rock Springs, Wyo. (Pop. 9,827). **239**

Coal mine center, with the largest high-grade coal fields west of the Mississippi.

All three coast-to-coast airlines cross the same Western Range of Mountains, and United has one of the lowest crossings, as the highest point on its New York-Los Angeles airway is 9,800 ft., and United regulations require planes to fly at least half a mile above terrain on the radio range course.

182 Point of Rocks, Wyo. To north- **215** west Pilot Butte guided early pioneers. This point was an old Pony Express station, and later served as stage coach station.

220 Wamsutter, Wyo., at edge of **177** famous Red Desert, where a half million sheep winter annually.

233 Creston, Wyo. The Continental **164** Divide. Summit of main divide separating streams flowing to Atlantic from streams flowing to Pacific. Altitude 7,107 ft. Contrary to general opinion the Continental Divide is not rugged mountain country, but rolling plateau.

261 Rawlins, Wyo. (Pop. 5,531), in **136** heart of sheep and cattle raising section.

266 Parco, Wyo., modern oil town **131** with refineries. Oil fields are to the north.

276 Fort Steele, Wyo. A famed **121** Indian battleground and army post in Indian days. Here plane crosses headwaters of North Platte.

306 Carbon, Wyo., an old coal camp **91** where first coal in west was mined and where "Big Nose George," famed outlaw, was hanged.

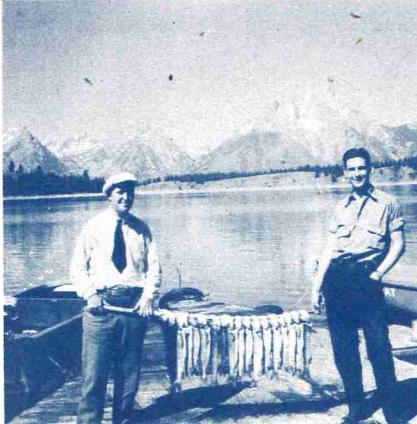
311 Medicine Bow, Wyo., to north. **86** Home of "the Virginian," hero of Owen Wister's famous novel. Eight miles east is area from which many skeletons of prehistoric animals have been taken, including largest dinosaur skeleton ever found.

321 Robbers' Roost, Ranch 1 Mile to **76** north, where bandits frequently held up trains in pioneer days, now one of the first western ranches seen on westward trip.

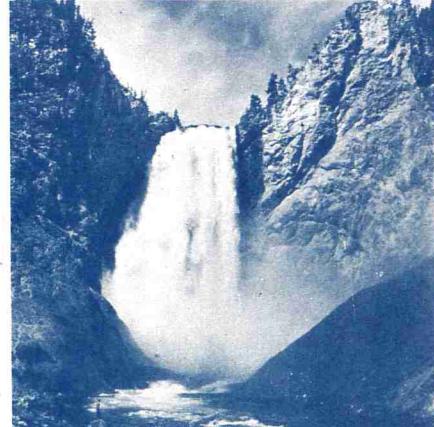
Salt Lake City

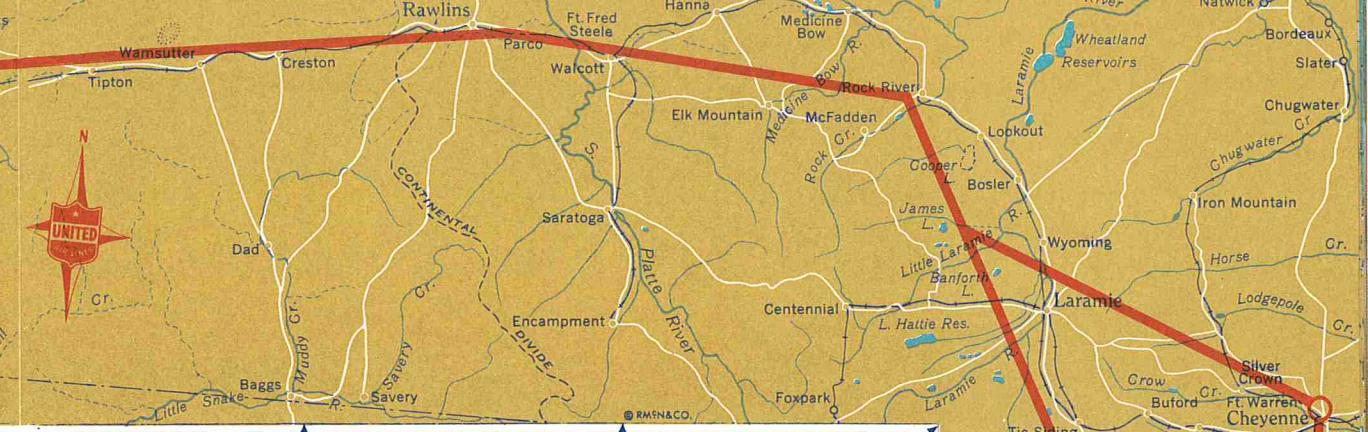


Fishing at Jackson Lake



Grand Canyon of Yellowstone





## SALT LAKE CITY—CHEYENNE—DENVER

### VIA CHEYENNE

Eastbound  
read down  
Miles from  
Salt Lake City

Salt Lake City—Cheyenne  
and Denver.

Westbound  
read up  
Miles from  
Cheyenne

**329** Rock River, Wyo., a cattle **68** center.

**356** Laramie, Wyo. (Pop. 10,627), **41** location of Wyoming State University. Nearby is old Fort Sanders, famous in Indian Warfare. Near this coast-to-coast point, planes to or from Denver rejoin the through airway. Flight from Denver to the interception point near Laramie is regarded as one of the most scenic in the U. S.

**395** Fort Francis E. Warren, directly west **2** of Cheyenne, an army post.

**397** Cheyenne, Wyo. (Pop. 22,474). **0** At Cheyenne connections are made with Inland Air Lines to Sheridan, Wyo., and Billings, Montana, and with its other route to Rapid City, Black Hills, and Huron, S. D.

**Air mileages:** to Salt Lake City, 383 mi. (2½ hrs.); to San Francisco, 1,014 mi. (9 hrs.).

### VIA DENVER

Read down  
Miles from  
Laramie

Salt Lake City—Cheyenne  
and Denver.

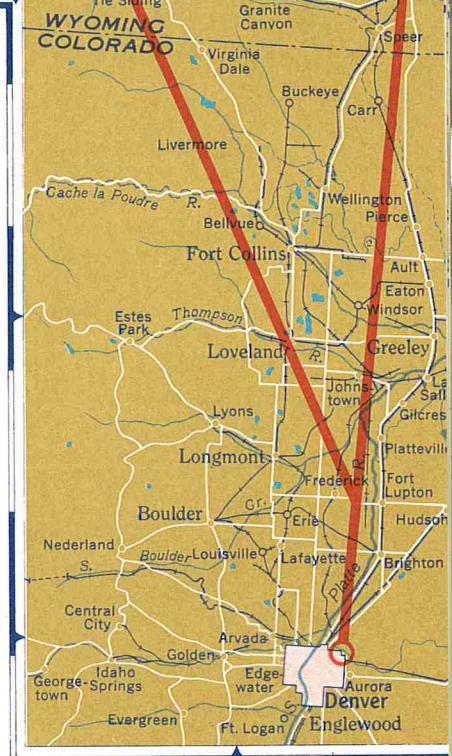
Read up  
Miles from  
Denver

**0** Laramie, Wyo. near this point, **115** planes to Denver swing to the south and planes from Denver turn west. This is one of the most scenic areas of the U. S.

**63** Estes Park, Colo., to the west. **52** Famous Colorado national playground.

**91** Boulder, Colo. (Pop. 12,958). To **24** the west of route. State University located here.

**115** Denver, Colo. (Pop. 345,000). **0** Capital of Colorado. Trading and commercial center not only of Colorado, but of surrounding states. Noted for sugar beets, mining and agriculture. Center of the great Colorado playground area and rapidly becoming the air hub of the Intermountain country, as airlines radiate north, south, east and west. **Air Mileages:** to San Francisco 1,014 mi. (8 hrs.); Los Angeles, 993 mi. (7½ hrs.); Seattle, 1,221 mi. (9½ hrs.); Chicago, 921 mi. (5½ hrs.); New York, 1,669 mi. (10 hrs.).



19

Western Ranch Scene

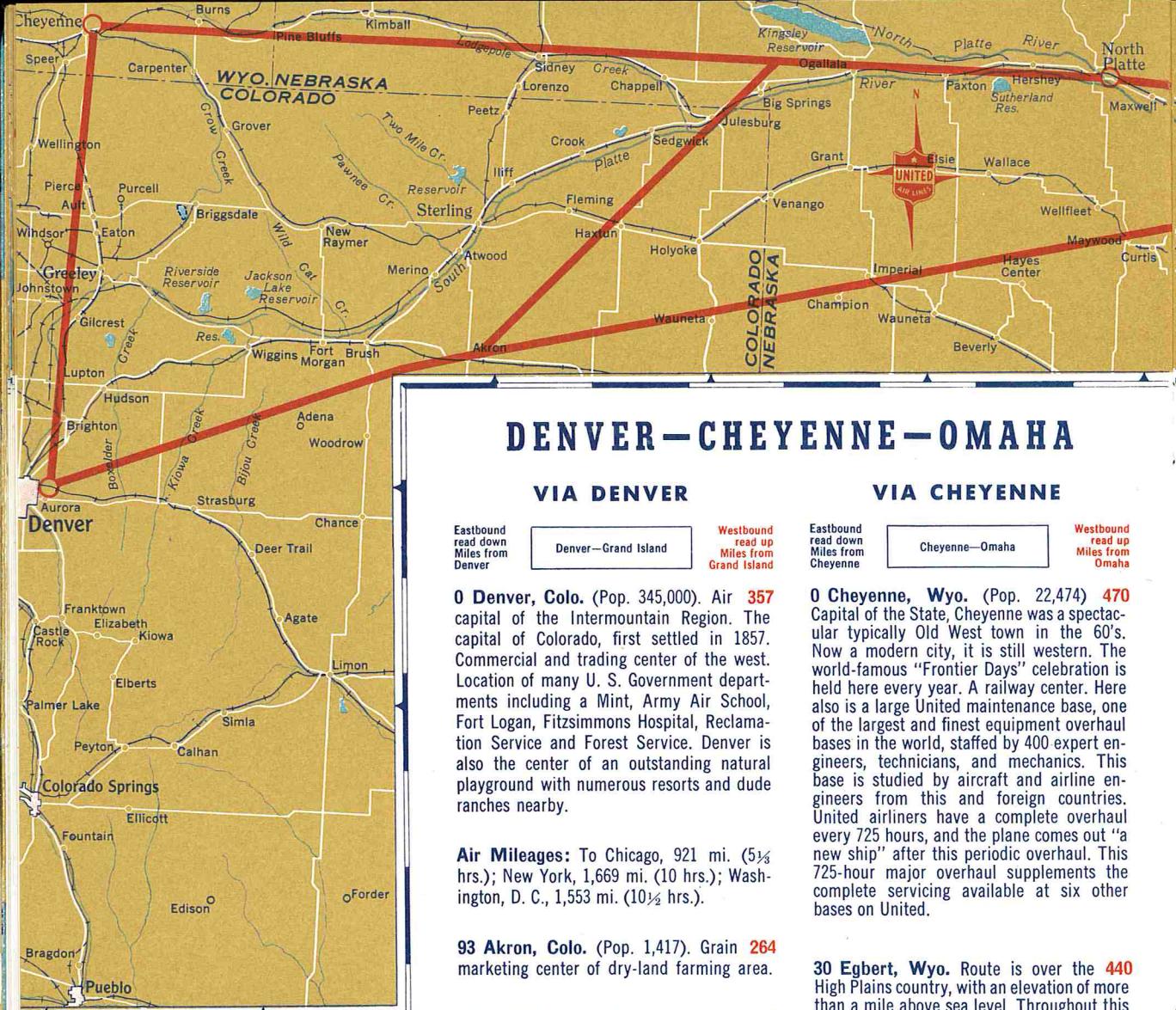


Riding in the West



Grand Lake, Colorado

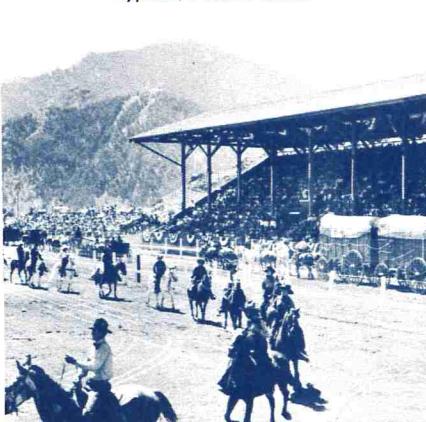




Civic Center, Denver

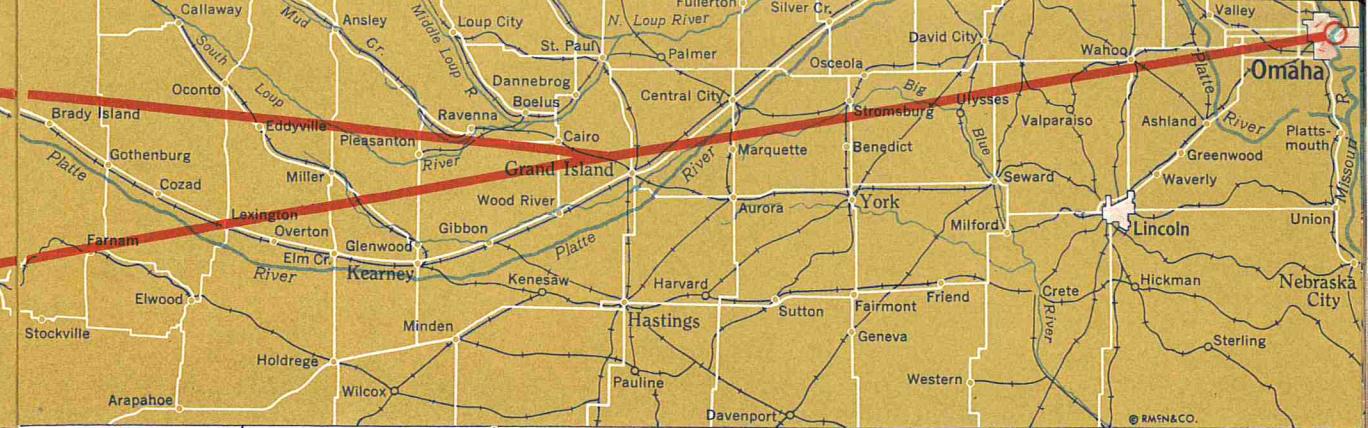


Typical Western Rodeo



Colorado Lake Resort





## DENVER-CHEYENNE-OMAHA

Eastbound  
read down  
Miles from  
Cheyenne

Cheyenne—Omaha

Westbound  
read up  
Miles from  
Omaha

Eastbound  
read down  
Miles from  
Cheyenne

Cheyenne—Omaha

Westbound  
read up  
Miles from  
Omaha

Eastbound  
read down  
Miles from  
Cheyenne

Cheyenne—Omaha

Westbound  
read up  
Miles from  
Omaha

**39 Pine Bluffs, Wyo.**, with pine- **431** covered bluffs from which town derives its name. Stock-raising and farming are principal activities in this region. In clear weather, the air traveler sees Long's Peak, almost miles distant.

**60 Kimball, Neb.**, with many wheat **410** farms in vicinity. The Nebraska-Wyoming state line is crossed along the Lodgepole Valley.

**78 Potter, Neb.** In 4 minutes we fly **392** as far as the Forty-Niners traveled in a day over these plains.

**96 Sidney, Neb.** (Pop. 3,388), with **374** another Department of Commerce intermediate landing field. Bluffs in this region have yielded fossil bones of mastodons and camels.

**113 Lodgepole, Neb.**, in the Lodge- **357** pole Creek Valley which the airway follows.

**143 Big Springs, Neb.** From this point **327** the air traveler may look south into Colorado. In the early days buffalo were more plentiful in this district than native cattle in later years. An Indian would trade a buffalo robe for a

cup of sugar. Buffalo skulls were used as milestones, sign posts and post offices.

**162 Ogallala, Neb.** Here 10,000 Indians were defeated by Gen. Harney in 1859.

**169 Roscoe, Neb.** Indians once attacked Covered Wagon pioneers from bluffs here.

**215 North Platte, Neb.** (Pop. 12,429) **255** Line of flight leads between the North and South Platte rivers, the former having a well-defined channel and the latter an unusually braided channel. Practically all water of the South Platte is removed for irrigation in summer. To north is the vast Sand Hill region. This region was a favorite hunting ground of Buffalo Bill.

**238 Gothenburg, Neb.** Flight is now **232** over the Great Plains country. Plane still follows the valley of the Platte River. To the north is the vast Sand Hill region, notable for lack of trees.

**249 Cozad, Neb.** An old hunting **221** ground of Buffalo Bill.

**259 Lexington, Neb.** Center of live- **211** stock and agricultural district. One of the

many scenes of warfare between Cheyenne Indians and Whites.

**309 Kearney, Neb.**, to the south **161** (Pop. 9,643). Named for old Fort Kearney; junction of Emigrant and Platte River valley trails. Here Maj. North made history, defending the Overland route against Indians.

**335 Crossing Platte River at Grand **135** Island, Neb.** (Pop. 19,130). New Municipal airport. Its name is derived from its location between Platte and Loup rivers. The Platte River crosses the entire width of the Great Plains.

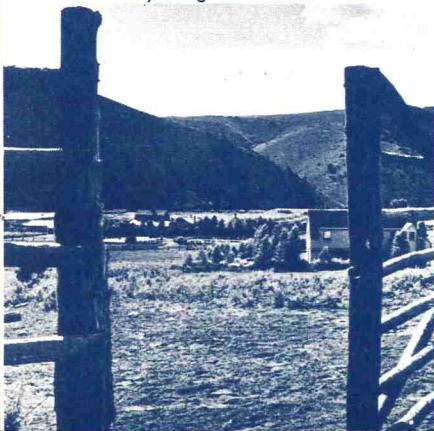
**385 Crossing Blue River near Ulysses, **85** Neb.**

**425 Wahoo, Neb.** Due south, Lin- **45** coln, Neb. (Pop. 81,984), capital of state. Gold dome of capitol building visible on some flights.

**470 Omaha, Neb.** (Pop. 223,844). **0**

**Air Mileages:** To Denver, 492 mi. (3½ hrs.); San Francisco, 1,498 mi. (10.1 hrs.); Los Angeles, 1,460 mi. (10½ hrs.); Portland, 1,544 mi. (11½ hrs.); Seattle, 1,689 mi. (12½ hrs.).

Wyoming Dude Ranch

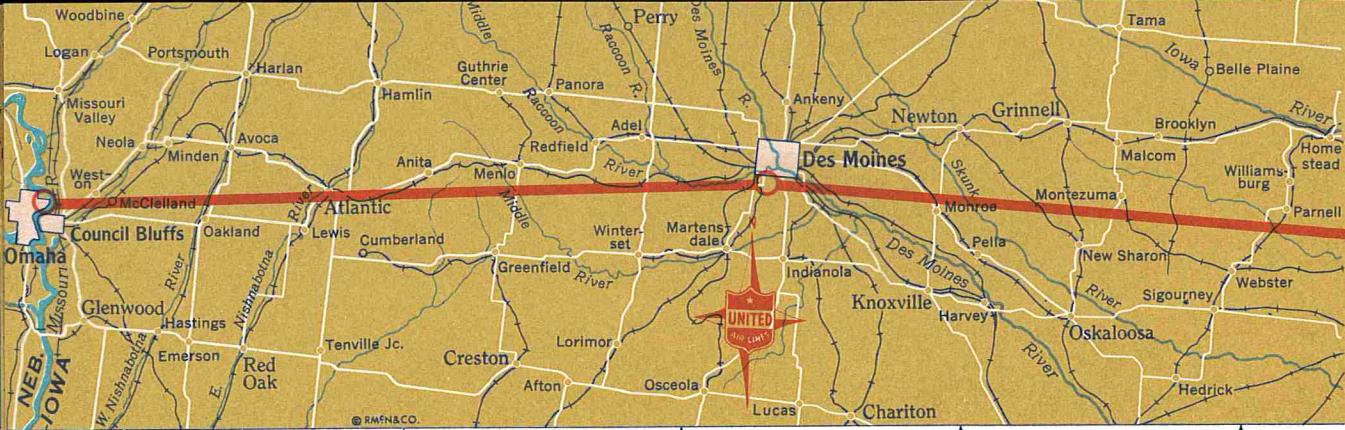


Coast to Coast Overnight



University of Nebraska, Lincoln





## OMAHA—CHICAGO

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

**0 Omaha, Neb.** (Pop. 223,844). Im- **430** portant packing, smelting, milling, manufacturing, air and rail center. **Air Mileages:** To Chicago, 430 mi. (2½ hrs.); to Cleveland, 749 mi. (4½ hrs.); to New York, 1,177 mi. (7 hrs.); Des Moines, 120 mi. (1½ hrs.); Moline, 147 mi. (1¼ hrs.); Toledo, 664 mi. (5 hrs.); Philadelphia, 1,120 mi. (7 hrs.). At Omaha United connects with Mid-Continent Airlines' planes to Minneapolis-St. Paul, 277 mi. (2½ hrs.) and to Kansas City, 167 mi. (1½ hrs.); and to St. Louis, 422 mi. (2¾ hrs.).

**5** Crossing Missouri River, boundary be- **425** tween Iowa and Nebraska. Missouri carries more silt than any other large river in nation, with 381 tons of dissolved and suspended matter removed from every square mile which it drains.

**5 Council Bluffs, Ia.** (Pop. 41,439). **425** Railroad and manufacturing town. Lewis and Clark held historic council with Indians in 1804 nearby. Mormon exodus began here in 1847.

**101 DeSoto, Ia.**, at junction of rail- **329** road and highway; just north of course. Western part of Iowa is the most important corn producing section of the state and is likewise the greatest meat-producing district.

For years Iowa has led all other states in volume of farm products. It has 29,000,000 acres under cultivation.

**120 Des Moines, Ia.** (Pop. 168,000). **310** Des Moines is the capital of the state and is chief manufacturing point. It is the site of Drake University.

Here the airway crosses the Des Moines River. Marquette and Joliet, the French explorers were reputed the first "Whites" to see the Iowa country, when they paddled up the Mississippi in canoes in 1673.

**151 Newton, Ia.** (Pop. 10,462), to **279** north. Crossing Des Moines River, which flows southeast through Iowa to empty into

the Mississippi River. Plane passes over railroads leading into Des Moines.

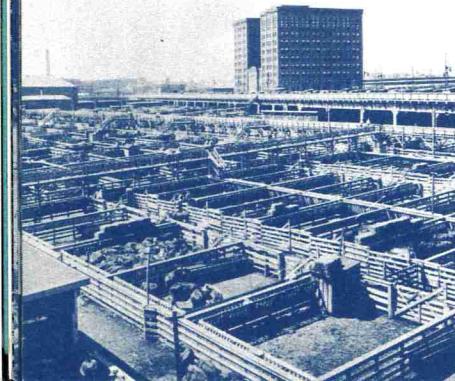
**170 Grinnell, Ia.** (Pop. 5,210) to **260** north. A college town. Here is located an intermediate airport. Country over which plane is flying is extremely level. Iowa claims the largest proportion of actually arable lands of all states, and has an immense agricultural production. More corn is grown here than in any other state.

**178 Montezuma, Ia.** Field 3 miles **252** east of town.

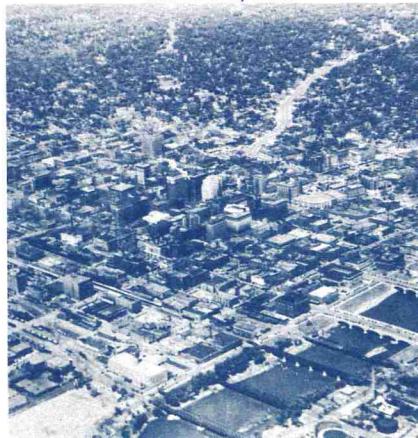
**222 Washington, Ia.** (Pop. 5,227), **208** several miles to the south of route.

**229 Iowa City, Ia.** (Pop. 17,182). Be- **201** tween Iowa City and Des Moines flight leads over an almost continuous series of farms. A general absence of trees in this section may be noted. **Cedar Rapids** (Pop. 62,120), to north.

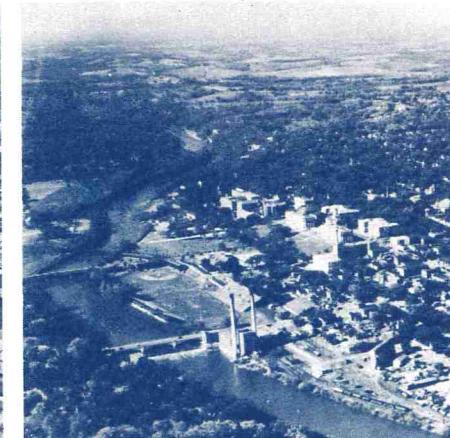
Omaha, Stockyards

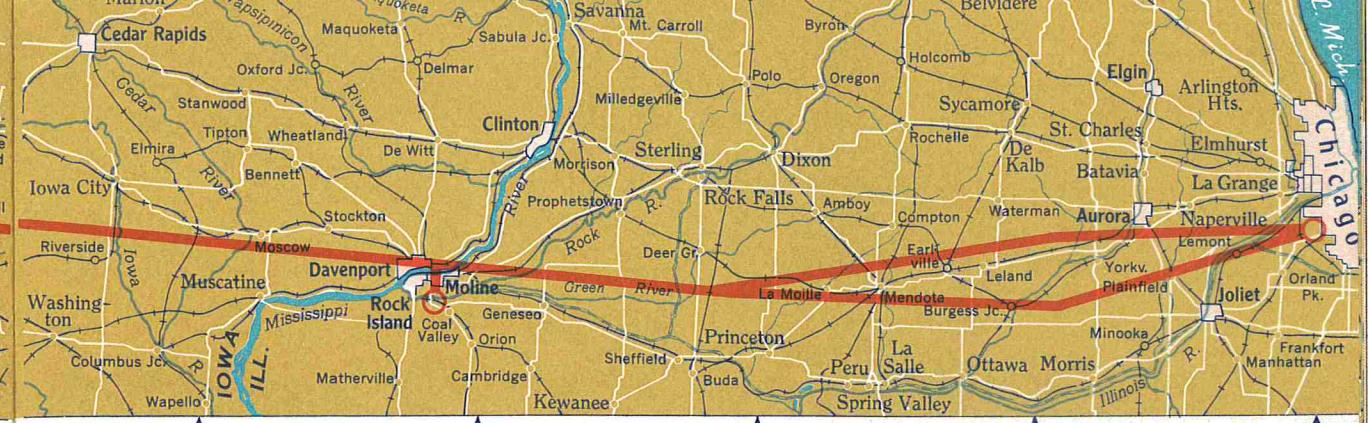


Des Moines, Iowa



Iowa City, Iowa





## OMAHA—CHICAGO

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

Eastbound  
read down  
Miles from  
Omaha

Omaha—Chicago

Westbound  
read up  
Miles from  
Chicago

Campus of the University of Iowa, may be seen near Iowa River.

United's Main Line airway leads westward across the fertile plains of Illinois and Iowa, paralleling the principal surface arteries of east-west transportation.

The Post Office Department in 1919 and 1920 laid out this, the nation's first coast-to-coast airway; government engineers selected the old Overland Trail as the most logical route for the Mid-Continent airway now flown by United. This is the route of the pioneers, the Pony Express, the first transcontinental railroad and telegraph, and the first coast-to-coast highway.

After operation for seven years by the Post Office as an air mail route, this Main Line airway was taken over by United's predecessor companies in 1927 and since that time mail-passenger-express service has been operated continuously.

291 Moline (Pop. 34,608), East 139 Moline (Pop. 12,359), and Rock Island,

III. (Pop. 42,775); Davenport, Ia. (Pop. 66,039). The famous "Quad-Cities," on the banks of the Mississippi River at the only point in Illinois where it runs westward. Important manufacturing area. Government arsenal is in Rock Island. Quad-City Airport at Moline.

302 Geneseo. Trading center for a 128 fertile farming region.

327 Sterling, Ill., to the north, site of 103 large power dam, with a canal leading southward from Rock River. Intermediate landing field here.

338 Dixon, Ill. North of airway in the 92 beautiful Rock River Valley, a region noted for mixed farming.

356 Mendota, Ill., ships four million 74 cans of corn annually.

383 Fox River. 47

398 Aurora, Ill. (Pop. 47,170). On Fox 32 River. Described as "the farming center with 140 factories." Batavia, Geneva to north; still farther north, Elgin, Ill. (Pop. 38,333).

409 Joliet, Ill. (Pop. 42,365). On Des 21 Plaines River, and Illinois and Michigan Canal. Located here are 150 factories, as well as State Penitentiary.

430 Chicago, Ill. Airways radiate in all 0 directions, and United also offers connections to 13 rail lines having their hub at Chicago.

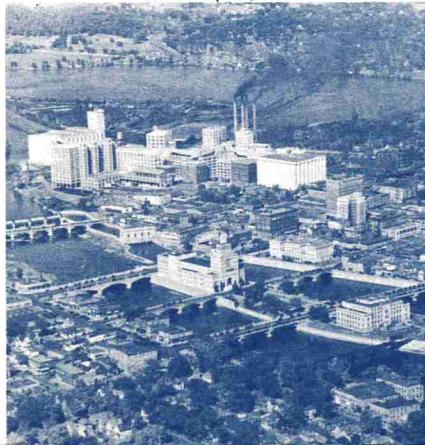
**Air miles and times: West:** To Omaha, 430 mi. (2½ hrs.); Denver, 921 mi. (6½ hrs.); Salt Lake, 1,286 mi. (8½ hrs.); Los Angeles, 1,890 mi. (12½ hrs.); San Francisco, 1,928 mi. (12¾ hrs.); Portland, 1,974 mi. (13½ hrs.); Seattle, 2,119 mi. (14½ hrs.); Spokane, 1,941 mi. (14½ hrs.); Vancouver, B. C., 2,242 mi. (16½ hrs.).

It is only one night via United Mainliner to all principal Pacific Coast cities.

Opposite the Chicago Airport is United's splendid General Headquarters Administration Building, rated as the outstanding airline building. It includes ultra-modern facilities for research and administrative departments. Here United has its own kitchens, where meals for East and West bound planes are prepared.

23

Cedar Rapids, Iowa



Davenport Skyline



Michigan Avenue, Chicago





## CHICAGO—CLEVELAND

Eastbound  
read down  
Miles from  
Chicago

Chicago—Cleveland

Westbound  
read up  
Miles from  
Cleveland

Eastbound  
read down  
Miles from  
Chicago

Chicago—Cleveland

Westbound  
read up  
Miles from  
Chicago

Chicago—Cleveland

Westbound  
read up  
Miles from  
Cleveland

**0 Chicago, Ill.** (Pop. 3,396,808). Na-**319**tion's second largest city. Business district on lake front, 9 miles northeast of airport. At Chicago's mile square municipal airport, the nation's hub of airways, United planes make quick connections with Northwest Airlines to Minneapolis-St. Paul; with Chicago & Southern to St. Louis, Memphis, New Orleans; with Braniff Airways to Kansas City, Oklahoma City, Dallas, Houston, San Antonio, and Mexico City; with TWA to Kansas City and southwest points; with American Airlines to Detroit, Toronto, St. Louis, Oklahoma City, Dallas, and points in the southwest; with Eastern Airlines to Indianapolis, Louisville, Nashville, Atlanta, and Florida points. It is only overnight from Chicago via United Mainliner to all principal Pacific Coast cities. New York is only 4½ hours from Chicago, via United Mainliner.

Plane flies over **Chicago Heights, Ill.**, and the "steel" cities of **Hammond, East Chicago**, and **Whiting, Ind.** are visible to north.

24

Museum of Science and Industry, Chicago



**Air Mileages:** To Cleveland, 319 mi. (1½ hrs.); Pittsburgh, 420 mi. (2½ hrs.); Washington, 683 mi. (4½ hrs.); New York, 747 mi. (4¾ hrs.); Boston, 970 mi. (5½ hrs.); Philadelphia, 690 mi. (4 hrs.).

**33 Gary, Ind.** (Pop. 111,719) to north, **286** famous for its steel mills. Gary is on shore of lake while airport is just to south of airway.

**48 Valparaiso, Ind.** (Pop. 8,736), **271** manufacturing city to south of course. North along shore line of Lake Michigan, are famous Indiana Sand Dunes. Route now parallels highway leading from Chicago to east.

**57 Westville, Ind.**, in a network of **262** railroads converging to skirt the southern tip of Lake Michigan to reach Chicago. To north is **Michigan City** (Pop. 26,476) on shore of Lake Michigan.

**89 South Bend, Ind.** (Pop. 101,268) **230** City is noted as a center of automobile manufacturing, and home of Notre Dame University.

**94 Mishawaka, Ind.** (Pop. 28,298) to **225**

north, a rubber manufacturing point.

**105 Elkhart, Ind.** (Pop. 33,434) to **214** north. Railroad center, manufacture of musical instruments.

**136 Airway** leads past Oliver Lake and **183** Whitmer Lake, with **Wolcottville, Ind.**, to the south and **Kendallville, Ind.**, farther southeast. Wolcottville is the home of Gene Stratton Porter, the author.

**154** Plane crosses highway and railroad **165** leading to **Auburn** and **Fort Wayne, Ind.**, to south. Town of Pleasant Lake just north of route.

**166** Imaginary line between **Ohio** and **153** **Indiana**. The rolling country at this point is the highest terrain between Cleveland and Chicago.

**176 Montpelier, O.**, with landing field **143** to west. Plane crosses the St. Joseph River, a tributary of the Maumee River. Plane is now flying over a succession of marines, distinguished by the prevalence of trees, and plains.

**200 Wauseon, O.**, to south of course. **119**

University of Notre Dame



Detroit, Michigan





## CHICAGO—CLEVELAND

Eastbound  
read down  
Miles from  
Chicago

Chicago—Cleveland

Westbound  
read up  
Miles from  
Cleveland

Eastbound  
read down  
Miles from  
Chicago

Chicago—Cleveland

Westbound  
read up  
Miles from  
Cleveland

Passengers can look to north where, approximately 10 miles from airway, ranges the boundary line between Ohio and Michigan. Northwestern Ohio looks like a vast checkerboard of farms. The plane is now flying over what is known as the Erie Plains, best suited to the growing of small grains and for pasture lands.

**225 Perrysburg, O.** Here plane crosses **94** Maumee River, flowing into Lake Erie. Near here were Fort Miami, over which flags of France, England, and United States have successively flown, and Fort Meigs, most important military post of the war of 1812. Maumee, on west side of river.

**233 Toledo, O.** (Pop. 282,349). Third **86** largest city in Ohio, important manufacturing and transportation center. Connecting airlines lead to Detroit and nearby Ohio points. At Toledo, United's planes operating between the Pacific Coast, Chicago and Washington, head southeast for non-stop service to Washington.

**250** Crossing Portage River. This portion **69** of Ohio is unusually flat in topography.

**276** Airway leads over Sandusky Bay. **43** **Sandusky, O.** (31,000), a historic old city. It is situated on Lake Erie at mouth of Sandusky Bay. North of Sandusky, Cedar Point, popular resort, and Put-in-Bay, where Admiral Perry scored a naval victory in the War of 1812 and said: "We have met the enemy and they are ours."

**284 Huron, O.**, just to south of airway, **35** an important shipping point on southern tip of Lake Erie. It was the first white settlement in this part of the country, being founded in 1749. Plane crosses Huron River.

**307** Crossing Black River. To north of **12** route is **Lorain, O.** (Pop. 44,125), on shore of Lake Erie, and to south, **Elyria, O.** (Pop. 25,120), twin manufacturing cities. Lorain is an important lake port and is an outlet for Central Ohio coal fields.

**319 Cleveland, O.**

**0**

## CHICAGO—DETROIT—AKRON

Eastbound  
read down  
Miles from  
Chicago

Chicago—Akron

Westbound  
read up  
Miles from  
Akron

**0 Chicago, Ill.**

**421**

**233 Toledo, Ohio**

**188**

**297 Detroit, Mich.** (Pop. 1,653,905—**124** 1944 est.) Fourth largest city in the nation, Detroit saw its beginnings in 1701 when Cadillac built a rude settlement on the bank of the Detroit River. The center of the large industrial area of southeastern Michigan, the city covers an area of 137 sq. mi. and is famous as the world's largest automobile production center. The Detroit River is the gateway between the upper and lower Great Lakes.

**421 Akron, Ohio**

**0 25**

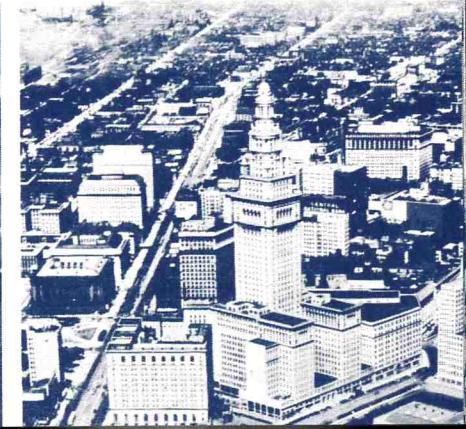
Toledo, Ohio

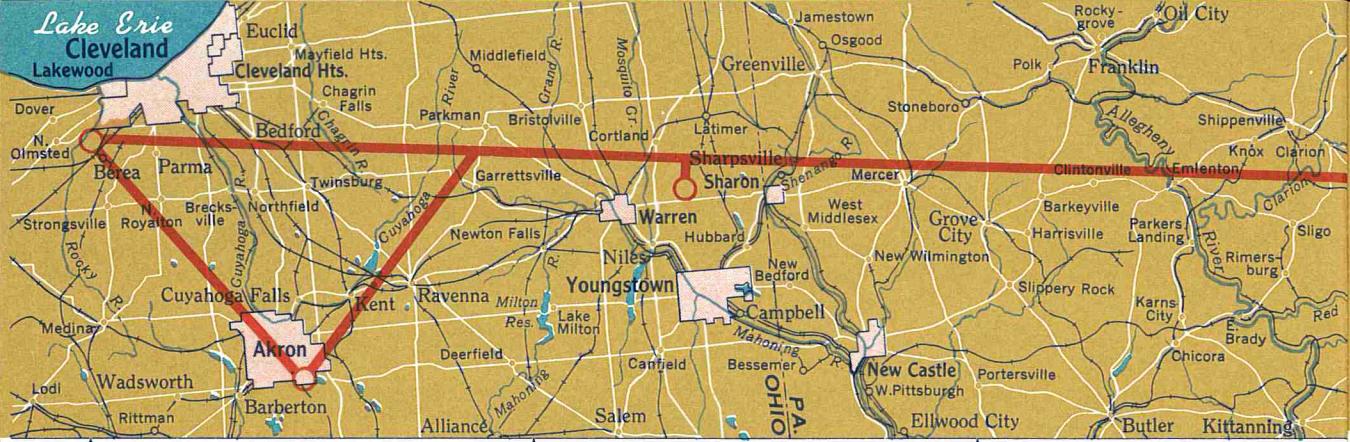


Spacious Mainliner Cabin



Cleveland, Ohio





## CLEVELAND-SUNBURY

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

**0 Cleveland, O.** (Pop. 920,000) sixth **269** largest city in the United States. Important air and rail center. Landing is made on Cleveland Airport, largest municipally owned field in country. United Air Lines maintains commuter service from Cleveland to Chicago and New York. From this port planes fly to Detroit (2½ hr.); to Buffalo (1½ hrs.); Syracuse (2¾ hrs.); Albany (4¾ hrs.) and Toronto (5¾ hrs.); to Akron (¾ hr.); Pittsburgh (1¼ hrs.); Washington (3¾ hrs.); to Columbus (1½ hrs.); Dayton (2¼ hrs.); and Cincinnati (3 hrs.).

**13** The Cuyahoga River, flowing from **256** Akron to Lake Erie. Flight is over level farming tablelands.

**33 Akron, O.** United offers direct **236** service to Akron, important rubber products manufacturing center.

**54 Warren, O., to the south.** **215**

**60 Cortland, O.** From this watershed **209** streams empty into Lake Erie and the Atlantic through Lake Ontario and the St. Lawrence River, and flow southward to the Gulf of

Mexico through the Ohio and Mississippi rivers.

**62 Youngstown, Ohio.** (Pop. 167,720) **207** 65 miles from Cleveland on the Mahoning River. Center of third largest iron and steel district in the country, using more than 8,500,000 tons of ore annually.

**66** Airway leads over the Allegheny **203** Escarpment, which runs east and west across New York State, then southward along the southern shore of Lake Erie and then directly south across Ohio. The Ohio section of the escarpment is a series of gently rolling hills.

**71** Crossing the Pennsylvania-Ohio **198** state boundary. **Hartford, O.**, is nearest Ohio town to border along route. From the air, the state of Ohio is markedly different from Pennsylvania, because the roads on the Pennsylvania side of the line conform with the general topography, by following valleys and ridge tops, whereas in Ohio, the roads follow the checkerboard or rectangular system to comprise an unusually regular layout of roads and farms. This makes it relatively easy for the air traveler to know

when the Pennsylvania-Ohio boundary is passed.

**73 Sharon, Pa.** (Pop. 25,622) to south. **196** The plane crosses west branch of Shenango River.

**87 Mercer, Pa.,** to south of route. **182** The gold dome of the Mercer County courthouse may be seen if weather is clear.

**91 Jackson Center, Pa.,** north of **178** route.

**113** Course now leads over terminal **156** moraine running north and south. While flying over the Allegheny Plateau, one contrasts the bee-line course of the airplane with the routes of surface transportation in uneven terrain. **Mileages:** New York to Chicago, by air, 747 miles; rail, 908 miles; automobile, 956 miles. Thus the speed advantage of airplanes over surface transport vehicles is increased by the lesser distance traveled, due to more direct routes. Certain of United's New York-Chicago flights stop at Cleveland only, while others serve Cleveland and also Philadelphia, Allentown, Bethlehem, Akron, Toledo, Youngstown and South Bend.

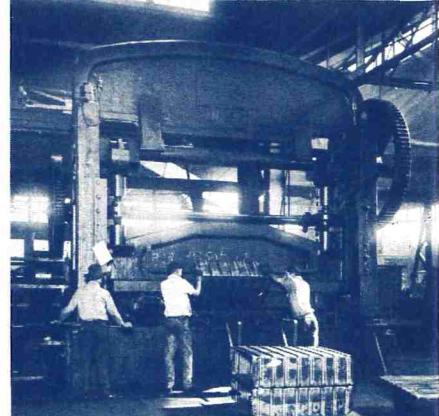
Mainliners ready for takeoff

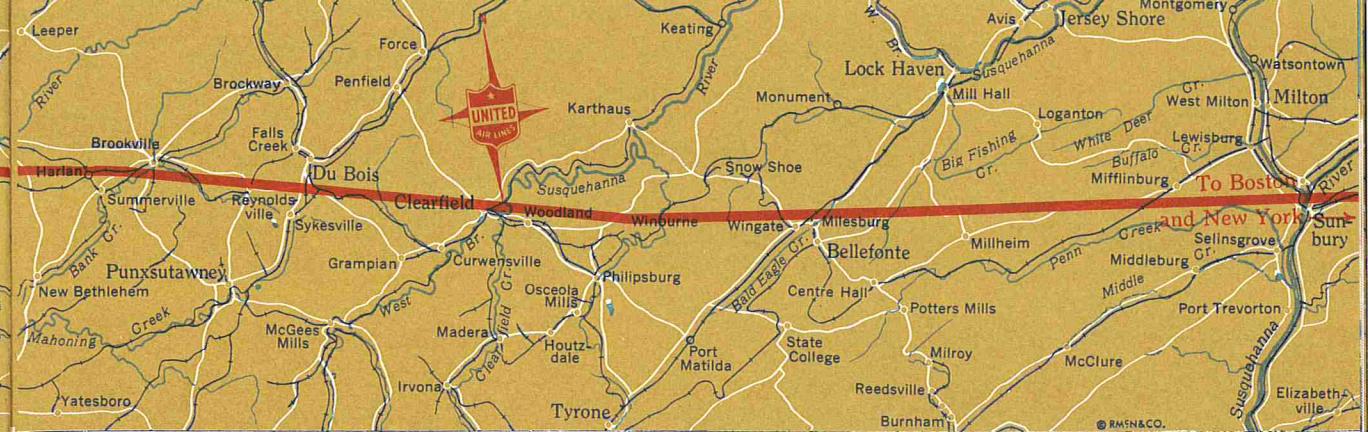


Ohio Farm Scene



Shaping Steel





## CLEVELAND—SUNBURY

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

Eastbound  
read down  
Miles from  
Cleveland

Cleveland—New York

Westbound  
read up  
Miles from  
Sunbury

**114** Crossing the Allegheny River at **155** Emlington just south of the course.

**117** Lamartine, Pa., in the heart of **152** the western oil district. There are numerous gas wells in this vicinity, their flames visible at night.

**123** Knox, Pa. Plane is now flying over **146** the oil fields of western Pennsylvania, the fields being crossed in quick succession.

**NOTE:** The Chicago-New York airway is the most frequently traversed airway in the world. As of April 1, 1945, United had completed more than 90,173 Chicago-New York flights.

**131** Clarion, Pa., on the Allegheny **138** Plateau just above the Clarion River, which flows southwest of town. The tall tower of Clarion's courthouse is exactly 1,500 feet above sea level. Here is located what is claimed to be the world's largest milk bottle plant, an example of the important glass-making industry which thrives in this region of quartz, sand, coal, oil, and gas.

**148** Brookville, Pa. Watershed of the **121** Allegheny River. Airport is southwest of the town, intermediate field. Just west of Reynoldsville, the airway leads over the Red Bank Creek, which flows into the Allegheny River to west.

**158** Reynoldsville, Pa., to south of **111** airway. Surrounded by bituminous coal mines. Note the broad Great Lakes-to-the-Sea Highway winding over the rolling country below the plane.

**164** DuBois, Pa. (Pop. 12,080), just to **105** north of course, with airport to southeast of city. DuBois is at junction of highways and railroads.

**182** Clearfield, Pa., at bend in the **87** west branch of the Susquehanna River. Water flows east to Atlantic through the Susquehanna and Chesapeake Bay; to west and south through Allegheny, Ohio, and Mississippi rivers to Gulf of Mexico. State nursery with 30,000,000 trees directly north.

**206** Plane soars high over eastern edge **63** of the Allegheny Front, whose wall rises 800 feet above the floor of the valley.

**221** Bellefonte, Pa. (Pop. 5,304), near **48** the state's geographic center. Scenic summer resort area.

**240** Winklebleck Forest Range Tower, **29** a familiar landmark west of Hartleton, with a revolving airway beacon and observation tower on its summit, 2,500 ft. above sea level.

**250** Hartleton, Pa. Plane is now flying **19** over the western edge of the Folded Appalachians which extend westward to the so-called Allegheny Front.

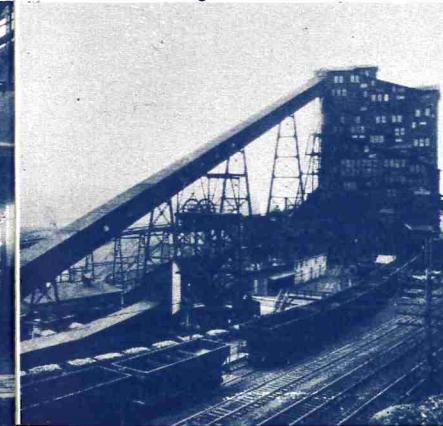
**255** Mifflingburg, Pa., to north of **14** course.

**259** New Berlin, Pa., with airway **10** beacon.

**269** Sunbury, Pa. (Pop. 15,462), just **0** south of junction of west and north branches of Susquehanna River. To north is town of **Northumberland**. Sunbury's airport is on island where the two branches of the river meet.

27

Loading Coal at Mine

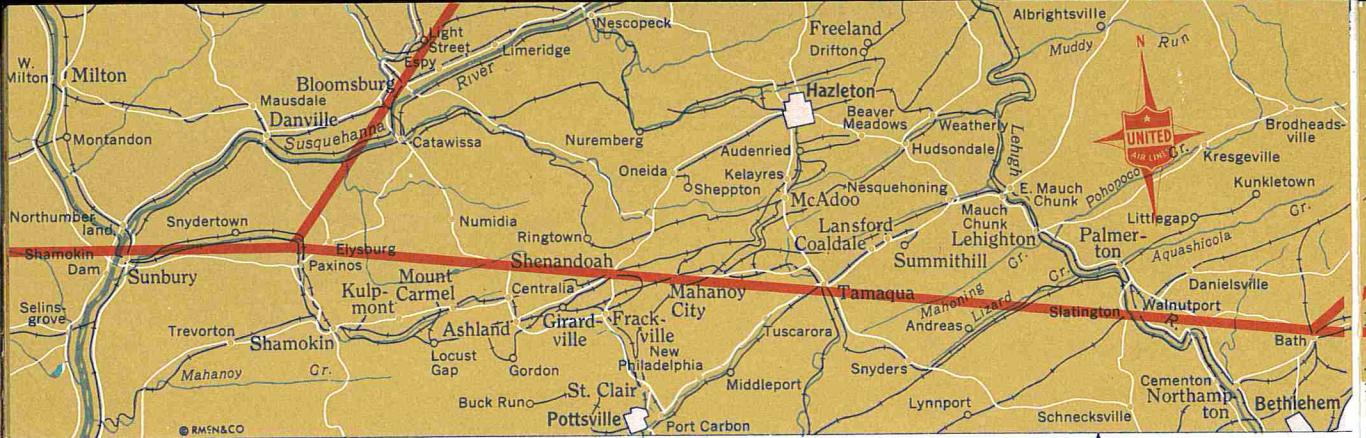


Pennsylvania Farm Land



Mealtine Aloft





## SUNBURY-NEW YORK CITY

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

**0 Sunbury, Pa.** (Pop. 15,462), is just **161** to the south of the junction of the west and north branches of the Susquehanna River.

**21 Numidia, Pa.**, with intermediate **140** field (No. 59B).

**30 Shenandoah, Pa.** (Pop. 19,790), **131** to south, in Shamokin Basin. Course crosses the anthracite coal region of Pennsylvania. Throughout this district is the evidence of many years of coal mining operations. Ridges are trenched along their crests by open ditches where miners have dug in from the surface to uncover the underlying vein of coal, and valleys are partially filled with tremendous heaps of culm resulting from the burrowing of underground workers.

**33 Park Place, Pa.**, highest point in **128** anthracite coal region along airway, 2,500 feet above sea level.

**36 Hometown, Pa.**, with municipal **125** airport, and **Barnesville, Pa.**, with federal intermediate field. Every 30-50 miles there are intermediate landing fields fully lighted **28** for night operation.

**51 Tamaqua, Pa.** (Pop. 12,486), to **110** south in hills along headwaters of the Schuylkill River.

**52 Summit Hill, Pa.** (Pop. 5,406). **109** **Lansford** and **Coaldale** to the north.

**54 Mauch Chunk**, to north is an un- **107** usually interesting town which is situated on a slope above the Lehigh River. Because of its "stair-step" layout on a steep hillside, it is sometimes called the "Switzerland of America." Plane is now flying over the Folded Appalachian region of eastern Pennsylvania.

**55 Lehighton, Pa.** (Pop. 6,615), with **106** an airport southeast of town.

**56** Over the Blue Mountains. Below is **105** the Lehigh River, and town of **Palmerton, Pa.** (Pop. 7,473) to the north. Located here are the world's largest zinc plants.

**72 Allentown, Pa.** (Pop. 96,904), and **89** **Bethlehem, Pa.** (Pop. 58,490) are important

industrial cities. Allentown-Bethlehem airport is directly on the eastbound course.

**93 Flying over Delaware River. Easton, 68 Pa.** (Pop. 33,589) at the point where Lehigh River and Bushkill Creek flow into the Delaware. To the south, **Phillipsburg, N.J.** (Pop. 18,314). To the north may be seen the famous Delaware Water Gap. Plane crosses boundary line between New Jersey and Pennsylvania. Highest hills are 1500 feet above sea level; United's high flight levels take Mainliners high above the terrain.

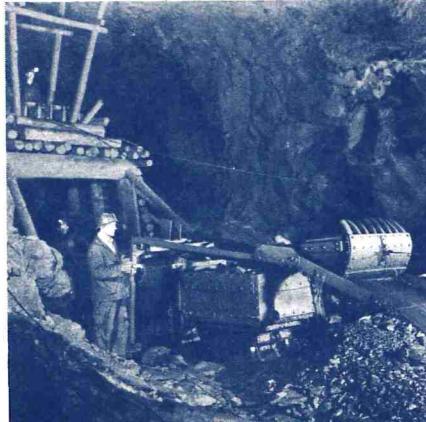
\* \* \*

**THE MAIN LINE AIRWAY.** The Chicago—New York airway was established as an air mail route in 1919 by the Post Office Department. A year later it was extended westward to San Francisco, thus becoming the first coast-to-coast airway. With its direct predecessor companies, United Air Lines has been flying this route—the famous Main Line Airway—ever since 1927, when private companies first began to carry air mail for the Post Office Department.

Mainliner in Flight

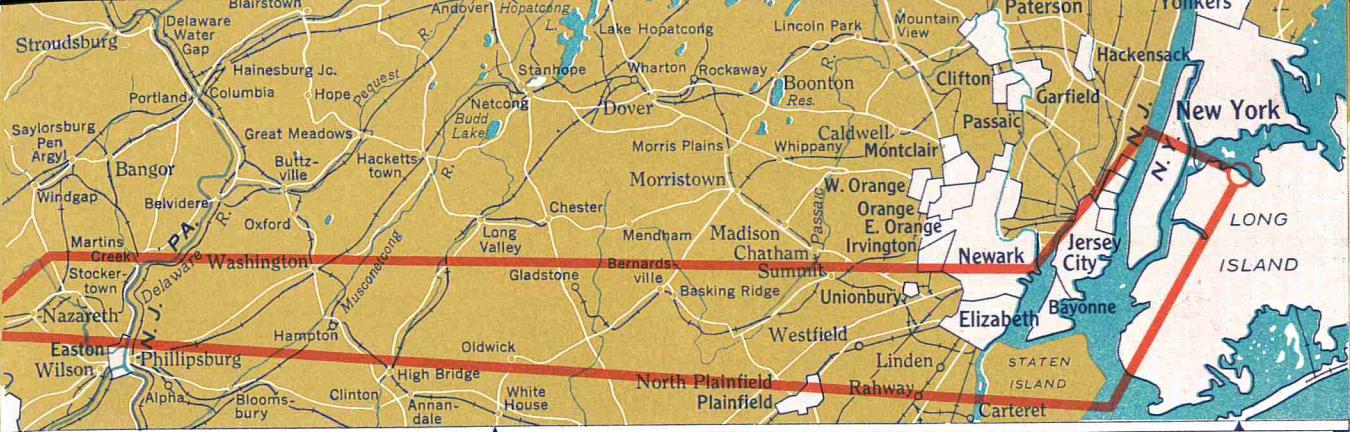


Pennsylvania Coal Mine



Coal Mine Tipple





## SUNBURY-NEW YORK CITY

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—New York

Westbound  
read up  
Miles from  
New York

**103** Plane flies over Washington, N. J. **58**  
(Pop. 4,643).

**106** Butler Park auxiliary landing field, **55**  
on Musconetcong River.

Every 20 to 30 minutes, pilots of United planes report their position to nearest ground radio station by radio telephone. Pilots receive reports on weather conditions along airways collected by U. S. Weather Bureau and United's meteorologists, and broadcast by Dept. of Commerce airway radio stations. United operates radio stations at all airports where scheduled stops are made.

**112** Over south branch of Raritan River. **49**  
Town of Califon, N. J.

**121** Town of Gladstone, N. J. **40**

**122** Passing over north branch of Raritan River. Town of Far Hills, N. J., to south.

**126** Bernardsville, N. J. Plane has **35**  
just crossed the Passaic River near its headwaters.

**128** Morristown, N. J., to the north, **33**  
in the center of the area that comprises the

natural museum of the Revolution. It was in this region that many important battles were waged during the war for independence.

**129** Over Somerset Hills, with commercial **32** airport just to south of course.

**134** Passaic River, Orange Hills to the **27** north.

**147** Newark, N. J. (Pop. 429,760). **14**  
An important manufacturing and commercial center. The populous cities adjoining Newark are: Elizabeth (Pop. 109,912); Summit (Pop. 16,165); Morristown (Pop. 15,270).

United's minimum flight levels require that planes be flown at least  $\frac{1}{2}$  mile above the ground on the radio range course—the highest point on United's Chicago-New York route is 2,600 ft. above sea level, and flights are generally at 7,000 or 9,000 ft. Eastbound planes fly the odd number thousand feet elevations and westbound the even ones.

**161** New York City (Pop. 7,454,995). **0**

New York's \$50,000,000 Municipal Airport (La Guardia Field) is the eastern terminal of United's transcontinental route. At this port transfers are made to planes operating to Montreal and South Atlantic seaboard cities. Here, United makes connections with trans-Atlantic planes, as United's New York-San Francisco service is a direct, convenient link between the trans-Atlantic and trans-Pacific air services. Limousine time to midtown New York's Airline Terminal opposite the Grand Central Terminal is 35 minutes. Flying over New York City one looks on the most densely populated area in the world. New York ranks first in all United States cities in number of air passengers, air mail and air express.

**Air mileage:** to Cleveland, 430 mi. (2 $\frac{3}{4}$  hrs.); to Chicago, 747 mi. (5 hrs.); to San Francisco, 2,649 mi., Seattle, 2,849 mi.—overnight flights. Eastbound coast-to-coast flights are approximately 2 $\frac{1}{2}$  hours faster than westbound trips because of prevailing winds.

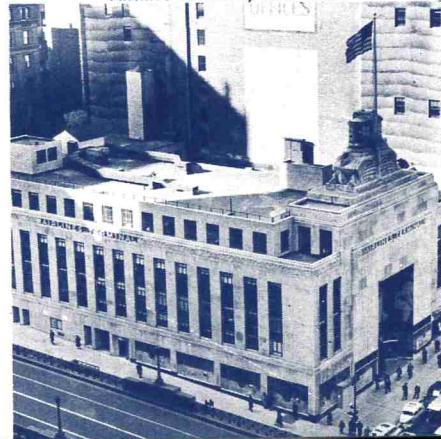
Delaware Water Gap

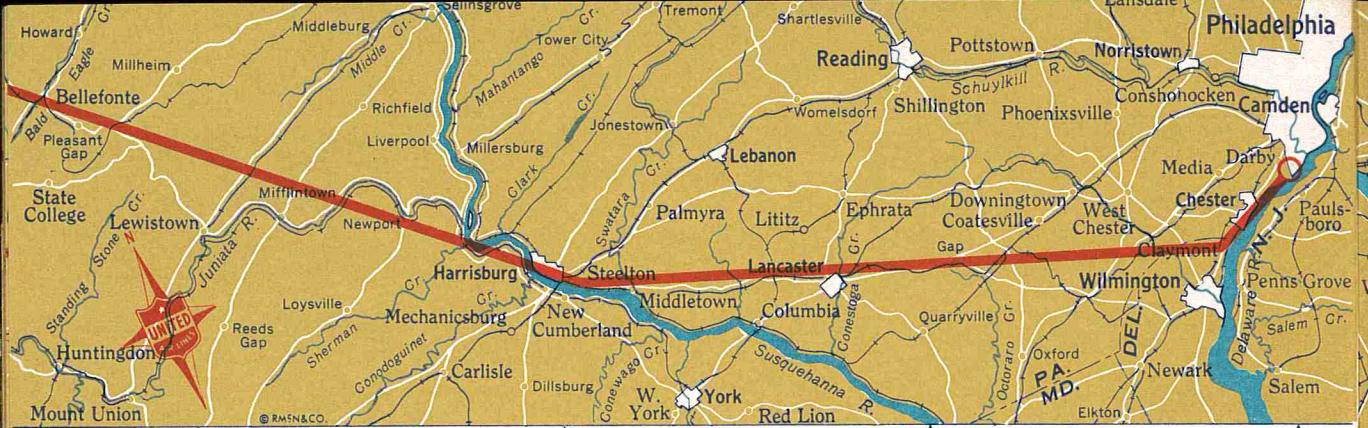


Newark Business District



Airlines Terminal, New York





## BELLEFONTE—PHILADELPHIA

Eastbound  
read down  
Miles from  
Bellefonte

Bellefonte—Philadelphia

Westbound  
read up  
Miles from  
Philadelphia

0 **Bellefonte, Pa.** (Pop. 5,304). Com- 157  
mercial and industrial center.

34 **Juniata River**, flowing to join the 123  
Susquehanna.

50 **Duncannon, Pa.**, on the Susque- 107  
hanna River, a main artery of traffic since  
pre-colonial days.

64 **Harrisburg, Pa.** (Pop. 83,893), Cap- 93  
ital of Pennsylvania, important industrial city  
on east bank of Susquehanna, at head of  
Cumberland and Lebanon Valleys.

95 **Lancaster, Pa.** (Pop. 61,345). Trad- 62  
ing and financial hub of the nation's second  
richest county.

139 **Wilmington, Del.** (Pop. 112,504). 18  
South of airway.

30 157 **Philadelphia, Pa.** 0

## AIR TRAVEL SUGGESTIONS

**Seat Belt:** Your stewardess will gladly assist you and explain the use of the seat belt. Please wear it when the plane is taking off or landing.

**Your Ears:** Chewing gum will be provided by your stewardess—its use is suggested while the plane is descending for a landing; it makes you swallow thus equalizing pressure on your ear drums. If your throat is congested from the effects of a "cold" be sure to tell the stewardess. She will provide assistance which will facilitate your efforts to ventilate your ears.

**Seat Adjustment:** Just press the button on the chair arm to recline or move forward . . . the stewardess will be glad to assist if you wish.

**Magazines:** Current issues of a wide variety are in the library at the front of the cabin.

**Smoking:** In consideration of other pas-

sengers it is requested that you do not smoke cigars or a pipe.

**Games:** Let your stewardess supply cards, and a cribbage board if you like.

**Stationery:** Pencils, postcards and portfolios of Mainliner stationery are on board for your use. We also have Western Union or Postal Telegraph blanks for you.

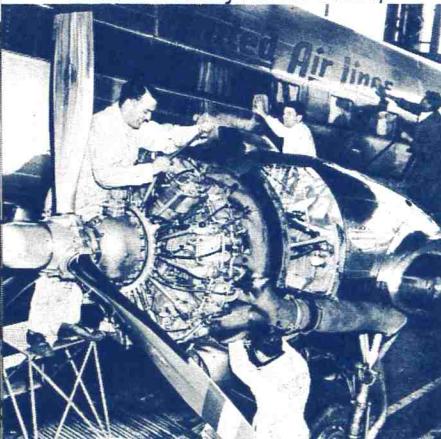
**Pillows and Robe:** Just ask your stewardess for these if you feel like napping a little.

**Paper Slippers:** Your stewardess will be glad to provide you with these.

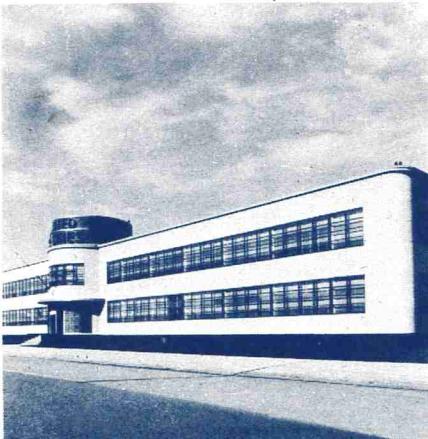
**Electric Razor:** This is available (with sterilized head) for your use. A 12 volt outlet is in the lavatory for this. Your own razor will not operate from this outlet.

**Gratuities:** These are not accepted by personnel . . . you are "a guest of the line."

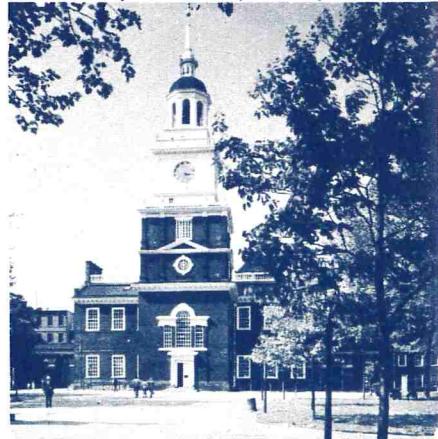
Mainliner Receiving Periodic Check-up

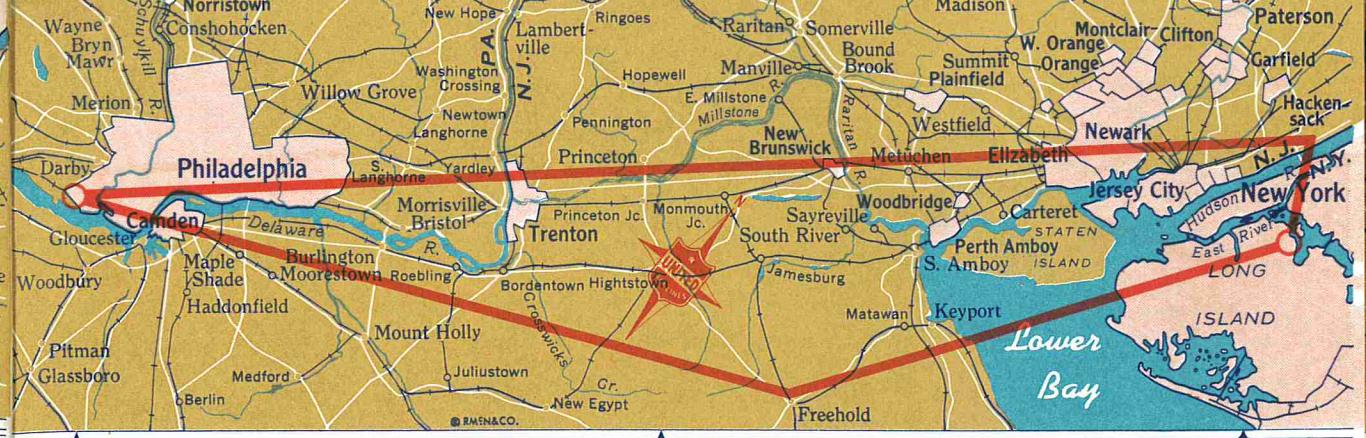


United Air Lines General Headquarters, Chicago



Independence Hall, Philadelphia





## PHILADELPHIA—NEW YORK CITY

Northbound  
read down  
Miles from  
Philadelphia

Philadelphia—New York City

Southbound  
read up  
Miles from  
New York City

Northbound  
read down  
Miles from  
Philadelphia

Philadelphia—New York City

Southbound  
read up  
Miles from  
New York City

Northbound  
read down  
Miles from  
Philadelphia

Philadelphia—New York City

Southbound  
read up  
Miles from  
New York City

**0 Philadelphia, Pa.** (Pop. 1,951,334). **95**  
Third largest city in the United States. Famous for its commercial activity, publishing houses and historical features. Philadelphia Navy Yard to the southeast of airport. Located at Philadelphia is Independence Hall, where the Declaration of Independence was proclaimed and where the Liberty Bell now rests. For several years after the founding of the republic, until the Capitol was built at Washington, Philadelphia was the temporary capital of our country. United Air Lines provides direct service from Philadelphia to New York, Cleveland, Chicago and all the West.

**8 Camden, N. J.**, (Pop. 117,536). **87**  
Important industrial and commercial center located on the east bank of the Delaware River. Ship building, radio and foods are among the major industries.

**33 Morrisville, Pa.**, on the Delaware **62**  
River, which marks the Pennsylvania-New Jersey state line.

**34 Trenton, N. J.** (Pop. 124,697). To **61**  
the east of the course. State capital of New

Jersey. Center for many industries including wire cable, pottery and china.

**45 Princeton, N. J.** (Pop. 7,719). To **50**  
the west of the course. Towers and large stone buildings are those of Princeton University.

**61 New Brunswick, N. J.** (Pop. **34**  
33,180). On the Raritan River. Cities of the area reaching from here to Newark comprise one of the largest industrial centers of the nation.

**74 Elizabeth, N. J.** (Pop. 109,912). **21**  
Important manufacturing center on Newark Bay, adjoining the city of Newark on the northeast. Oldest English settlement in the state.

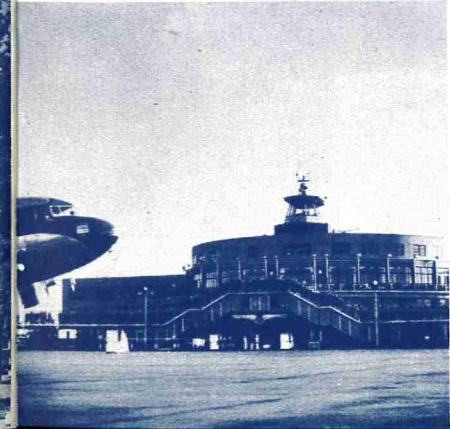
**80 Newark, N. J.** (Pop. 429,760). Large **15**  
commercial and manufacturing center with large municipal airport.

**95 New York City, N. Y.** (Pop. 7,454,995) **0**  
The largest city in the United States and outstanding commercial and financial capital of

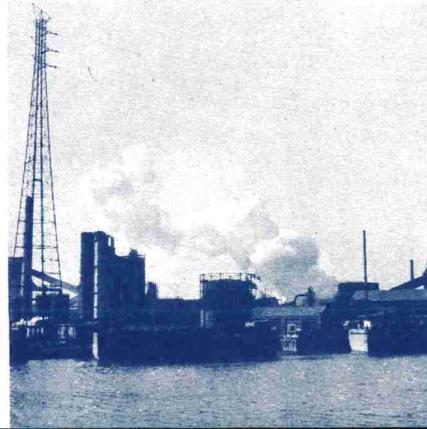
the world. New York's \$50,000,000 Municipal Airport (La Guardia Field) is the eastern terminal of United's Midcontinent trans-continental route. At La Guardia Field transfers are made to planes operating to Boston and New England points, to Montreal and South Atlantic seaboard cities. Here, United makes connections with trans-Atlantic planes. Limousine time to midtown New York's Airline Terminal opposite the Grand Central Terminal is 35 minutes. New York is completing what will be one of the largest airports in the world, the new terminal being known as Idlewild, which will supplement La Guardia Field.

**Air mileage:** to Cleveland, 430 mi. (2½ hrs.); to Chicago, 747 mi. (4½ hrs.); to San Francisco, 2,683 mi. (18½ hrs.); to Los Angeles, 2,642 mi. (18½ hrs.); to Seattle, 2,849 mi. (20½ hrs.). It is only an overnight flight from New York to major Pacific Coast cities in United Mainliners. Eastbound coast-to-coast flights are 2½ hours faster than westbound trips because of prevailing winds. **31**

La Guardia Field Terminal, New York



Eastern Industrial Scene



The Towers of Manhattan





## TOLEDO—WASHINGTON

Eastbound  
read down  
Miles from  
Toledo

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

**0 Toledo, Ohio** (Pop. 282,349). One **394** of the nation's great industrial cities. The third largest port on Great Lakes, greatest shipper of bituminous coal in world. Toledo stretches for 15 miles along both sides of Maumee River, at westernmost tip of Lake Erie.

**41 Sandusky, Ohio** (Pop. 31,000). On **353** southeast corner of Sandusky Bay, with one of finest natural harbors on Lake Erie. An industrial city with more than 60 industries; gateway to popular resort and sports area.

**73 Elyria, Ohio** (Pop. 25,120). At the **321** confluence of east and west branches of Black River. Trading and industrial center.

**114 Akron, Ohio** (Pop. 244,791). Rub- **280** ber capital of the world, located at the highest **32** point of the old Ohio & Erie Canal.

**129 Canton, Ohio** (Pop. 108,401). **275** Southwest of route. A pleasant industrial city set in rich farming region, at junction point of three branches of Nimishillen Creek.

**134 Alliance Ohio** (Pop. 22,405). **260** Diversified manufacturing city specializing in cranes, heavy mill machinery, china, pottery, paints, pipe organs, safes, cash registers.

**168 Ohio River**, since early days one of **226** the country's most important rivers. Pathway of the great migrations which developed the West in the 18th and 19th centuries.

**207 Pittsburgh, Pa.** (Pop. 689,159). **187** Second largest city in Pennsylvania and one of the great steel centers of the world. Situated at point where the Monongahela and

Eastbound  
read down  
Miles from  
Toledo

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

Allegheny rivers unite to form the mighty Ohio, it is the center of an area in which are located 62 glass factories, 350 coal mines, 35 steel mills. Fifty per cent of the country's coke is made here. Pittsburgh leads the country in manufacture of clay products, and is the world's greatest maker of electrical devices, air brakes, vanadium and radium products, rolling mill machinery.

**209 Monongahela River.** **185**

**278 Pennsylvania-Maryland border.** **116**

**288 Cumberland, Md.** (Pop. 39,483). **106** Maryland's second city in size, situated in Valley of Potomac. Trading point for prosperous farming area; important railroad and manufacturing center: glass, steel and tin plate, beer, synthetic silk.

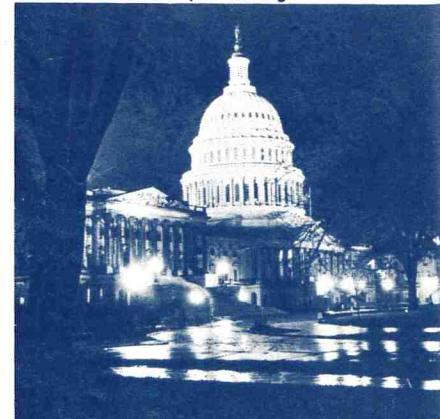
Downtown Toledo

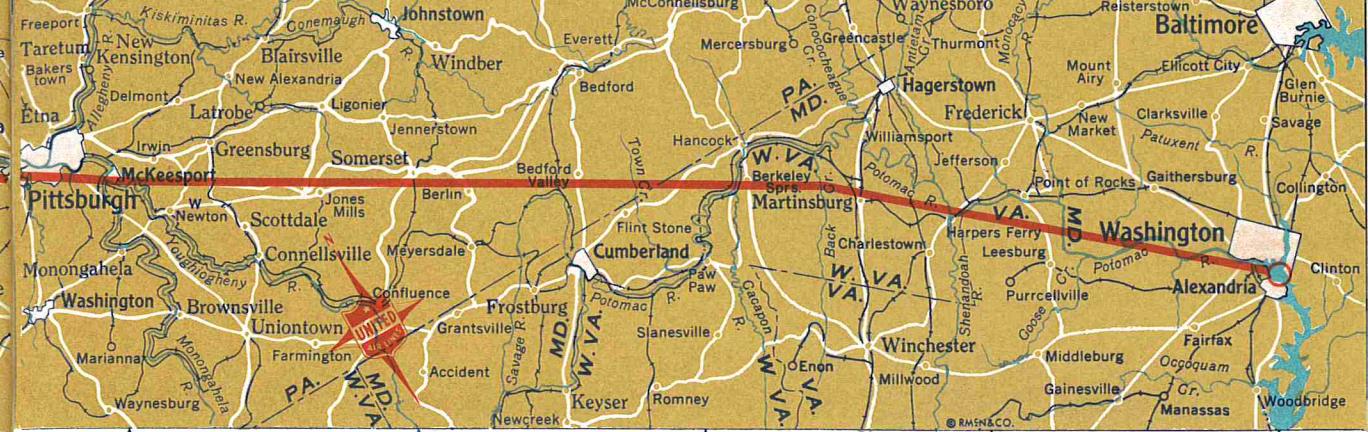


The National Capitol



Capitol at Night





## TOLEDO—WASHINGTON

Eastbound  
read down  
Miles from  
Toledo

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

Eastbound  
read down  
Miles from  
Toledo

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

Eastbound  
read down  
Miles from  
Toledo

Toledo—Washington

Westbound  
read up  
Miles from  
Washington

**331 Martinsburg, W. Va.** (Pop. 15,- 63 063). Industrial city on banks of Tuscarora Creek. Principal products: woolen goods, women's garments, apple jelly, vinegar, cement, paper boxes, brick and tile, furniture, limestone, road surfacing material.

**345 Harper's Ferry, Va.** Scene of 49 John Brown's raid, which helped kindle the Civil War. On bank of the Potomac.

**349 Mainliner follows course of the his- 45 toric Potomac River.**

**394 Washington, D. C.** (Pop. 796,000) 0 Capital of the nation and one of the world's most beautiful cities. Apart from its greatness as a national—and world—capital, Washington has deep significance for Americans because it is the site of many of our country's shrines. In and nearby Washington are the

Jefferson and Lincoln Memorials, Washington Monument, Tomb of the Unknown Soldier, the National Cemetery at Arlington, Mt. Vernon, and many other historic and cultural objects familiar to every schoolboy. The National Airport at Washington is one of the finest airports in the world.

**Air mileages:** to Toledo, 394 mi. (2½ hrs.); to Chicago, 632 mi. (4½ hrs.); to Des Moines, 938 mi. (7½ hrs.); to Omaha, 1,056 mi. (7½ hrs.); to Denver, 1,542 mi. (12 hrs.); to Los Angeles, 2,533 mi.; to San Francisco, 2,537 mi.; to Portland, 2,596 mi.; to Seattle, 2,734 mi. (Overnight flights from Washington to these and other Pacific Coast cities.)

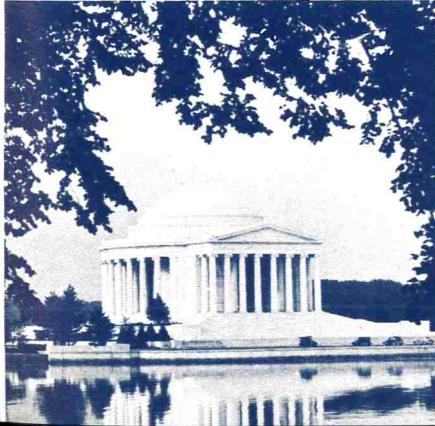
United Air Lines provides the only direct, one-line service between Washington, D. C., and the Pacific Northwest. When United extended its service directly into Washington from its Main Line coast-to-coast airway, the nation's capital was made directly accessible

for the first time, by air, to such cities as Seattle, Portland, San Francisco, Salt Lake City, Denver, Omaha, and Des Moines. Besides this direct service to and from Washington, United maintains joint schedules with Pennsylvania Central Airlines, connecting with the Main Line at Cleveland. These provide added flights daily for Washington, which now ranks as the nation's third city in passenger traffic.

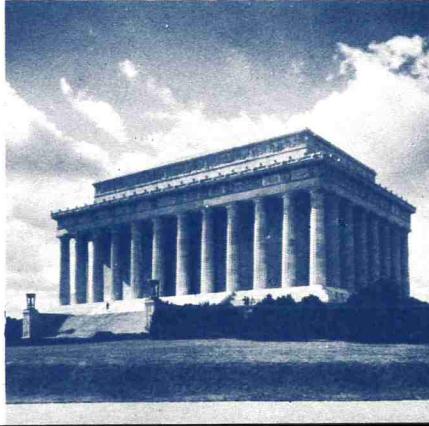
In postwar, giant, 4-engined, United Mainliners will make the Toledo-Washington flight in just 1½ hours as compared with the present 2½ hour schedule.

These sky giants will carry 52 passengers, plus mail and express at 5 miles a minute. Washington, D. C. will be just 3 hours, 5 minutes from Chicago . . . 6¾ hours from Denver and 9¾ hours from San Francisco. Yes . . . you'll have breakfast in Washington, D. C. and be on the west coast in plenty of time for pre-dinner cocktails or a late afternoon tea.

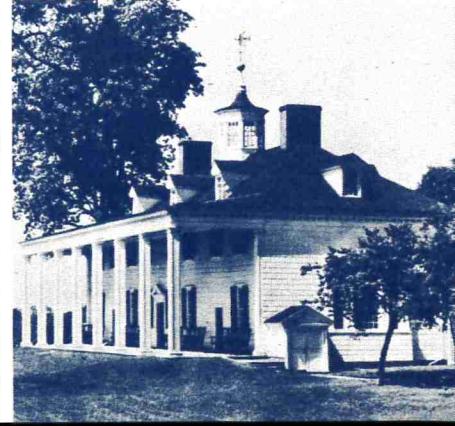
Jefferson Memorial

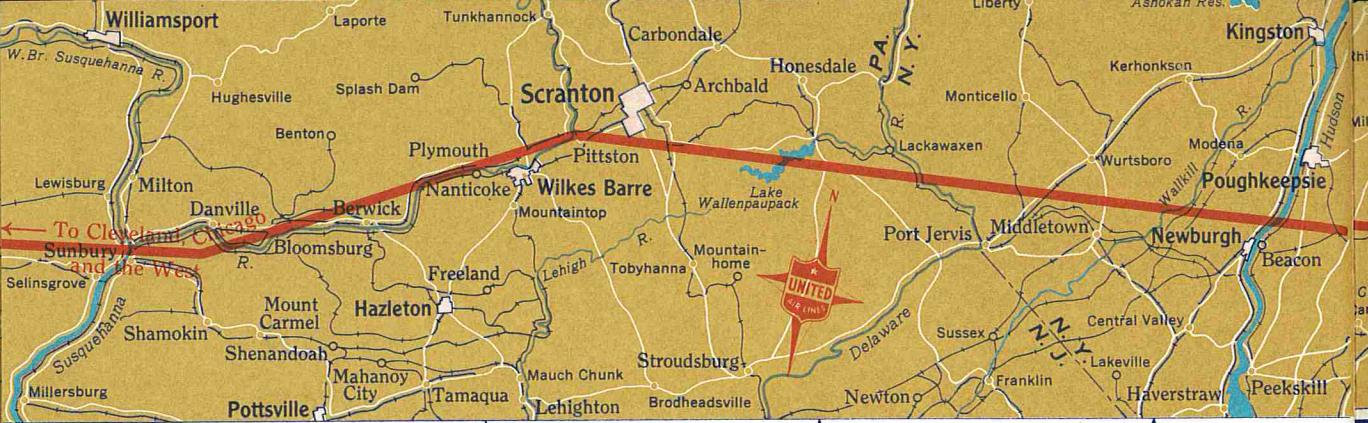


Lincoln Memorial



Mt. Vernon





## SUNBURY—HARTFORD—BOSTON

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—Boston

Westbound  
read up  
Miles from  
Boston

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—Boston

Westbound  
read up  
Miles from  
Boston

Eastbound  
read down  
Miles from  
Sunbury

Sunbury—Boston

Westbound  
read up  
Miles from  
Boston

**0 Sunbury, Pa.** (Pop. 15,462), is just **325** to the south of the junction of the west and north branches of the Susquehanna River.

**57 Wilkes-Barre, Pa.** (Pop. 86,236). **268** Important manufacturing and commercial center in the heart of anthracite region.

**70 Scranton, Pa.** (Pop. 140,404) **255** Metropolis of great anthracite region of northeastern Pennsylvania which produces more than 87,000,000 net tons of anthracite a year. Center of second largest silk manufacturing district in U. S. Has largest Nottingham lace mill in world.

**151 Newburgh, N. Y.** (Pop. 31,883). **174**  
**34** On west bank of Hudson River 60 miles north

of New York City. Dairy, farm and orchard products. Variety of manufacturing industries.

**212 Bristol, Conn.** (Pop. 30,167). In- **113** dustrial city 16 miles southwest of Hartford on the Pequabuck River. Noted for clock manufacturing, fishing rods, ball bearings, springs and golf clubs.

**229 Hartford, Conn.** (Pop. 166,267). **96** Capital of Connecticut, Hartford covers an area of 17.4 sq. mi. on the west bank of the Connecticut River. A municipal airport is two miles south of the center of the city. Hartford, famous as an insurance home office center (44 companies), has claimed the tallest building in New England, Travelers Tower (527 ft.) visible for many miles by day or night.

**289 Woonsocket, R. I.** (Pop. 43,496). **36**

On Blackstone River which provides water power. Manufacturing center for woolen, worsted and rayon yarns, fabrics, machinery, tools, gauges, and rubber products.

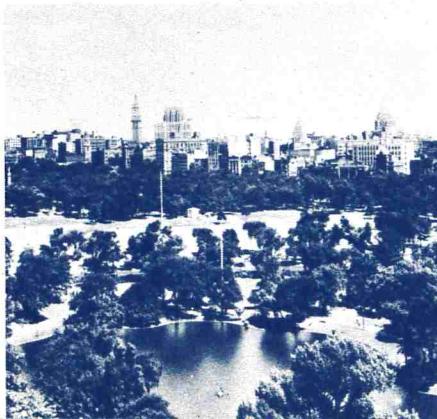
**325 Boston, Mass.** (Pop. 770,816). **0**

"Birthplace of Freedom" and the capital of Massachusetts, Boston is the ninth largest city in the nation, boasting a metropolitan area population of 2,500,000. This great manufacturing and commercial center was settled over 300 years ago by people of great character and vision. It boasts of such famous historical landmarks as the "One if by land, two if by sea" Old North Church, Bunker Hill Monument, Paul Revere's home and Faneuil Hall. By United's direct east-west

Hartford Skyline

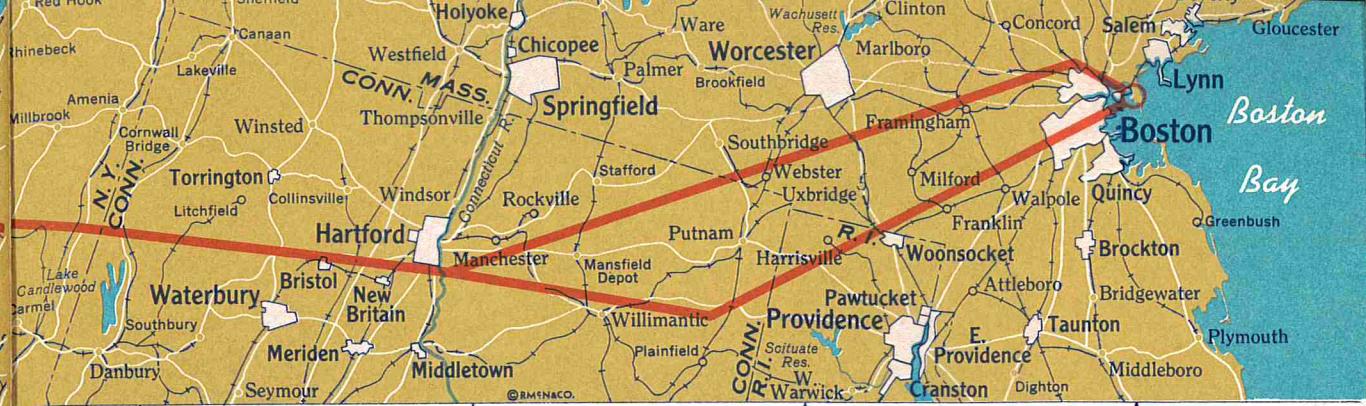


Boston Skyline



Paul Revere's Statue





Eastbound  
read down  
Miles from  
Sunbury

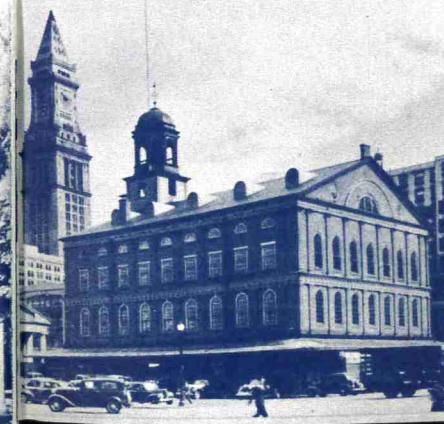
Sunbury—Boston

Westbound  
read up  
Miles from  
Boston

route, Boston is 601 miles from Cleveland, 923 miles from Chicago, 1,833 miles from Denver and 2,893 miles from San Francisco.



Faneuil Hall, Boston



## THE IMPORTANCE OF AIR CARGO

United Air Lines, in addition to being one of the largest carriers of passengers in the world, ranks first among all airlines in cargo (mail, express, freight) carried, and was the first company to inaugurate coast-to-coast planes devoted solely to cargo, which in the post-war period promises to expand rapidly in view of the benefits shippers will receive from four and five-mile-a-minute speed. Those interested in literature on air cargo and its advantages can obtain same by writing the Air Cargo Department, United Air Lines, Chicago.

UNITED AIR LINES



